

MINIMALIST

HOME DECOR

&

CRAFTS

MACRAME PATTERNS FOR BEGINNERS
CROCHET FOR BEGINNERS
HOMEMADE SOAP MAKING
MICROGREENS

Restor your spirit and find the inner peace while learning step
by step Macrame, Crochet, Soap making and microgreens.
Give an astonishing touch to your house



MARINA SOARES
LINA PRESLEY

MINIMALIST HOME DÉCOR & CRAFTS

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SOARES Marina & PRESLEY Lina

2021

“Do what you can, with what you have, right where you are”

Brian Tracy

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4 books in 1

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MACRAMÉ PATTERNS FOR BEGINNERS

Find the inner peace while learning in 27+ step by step projects the secrets of making knots. Give an astonishing bohemian touch to your house.

INTRODUCTION



Sometimes handmade is so much more meaningful!

Yes, because it is all about the feelings you create by making something nice with your own hands. If you ever want to take up a craft, do not take it as a profession. Take it as a pleasure-time activity (even if you are doing it for money). Why?

It is because the experience of a seller is way different than the experience

of a passionate artist. And you know what gives an artist immense pleasure? That Feeling!

Really! The feelings matter the most when you make something really amazing out of an ordinary thing – such as a used rope or cording. Don't believe that? Ask a macramé artist!

Macramé craft has been there for ages. Sometimes, it seems like magic. You can turn a simple rope into something really beautiful just by knotting. NO MATERIAL REQUIRED!

Believe it or not. Unlike other crafts and hobbies that require you to get your supplies ready (like if you want to make Italian Pizza, you need to have the dough, cheeses, meat, mushrooms, sausages, tomato puree, and more ready; similarly, if you want to make a gigantic painting; you need to have a big canvas, and a whole assortment of paint colors and brushes etcetera) before creating something impressive.

Macramé craft is a low maintenance passion (in this regard).

What is more interesting about this form of art is it does not require you to learn a special skill. You can just learn a few knots to get started. Moreover, learning those basic knots is way easy than you think. (Some of the knots we already know and use in our daily life. For instance, girls do braiding. Braiding is a macramé knot that you can use in creating any of your patterns!)

One thing, however, it really demands is your patience and practice. If you want to create something intricate and different (especially), you have got to give it some time. We will be sharing more tips and techniques of this amazing craft in this book.

This book is written for newbies as a guide. It contains all the important (and basic) information on macramé craft. From famous knot types to beginner ideas and from macramé history to usual knotting tricks – you will find everything (important) in this guidebook.

There are photographs also shared here and there in the book for more clarity. Hope you would like this effort. Happy Knotting!

CHAPTER 1: WHAT IS A MACRAMÉ CRAFT?

Macrame is a popular technique in crafting in which, by using knots, people create different textiles. This style of textile has gained popularity in recent years. Many crafters and artists have reached milestones by innovatively using Macrame and selling it as a DIY product on websites like Etsy. Some people are using it for wall hangings and plant hangers. One of the main reasons for this method's popularity is that you can make hundreds of different things which are easy to make, like key chains and table runners.

How to get started?

If you are just a beginner, you are advised to start with a step by step journey and keep things simple at the start. If you are looking for a DIY project, then make it very simple by buying a simple macrame craft, and by following that particular product's knots, try to make your own. In this way, you can start practicing simple knots and then jump on to the complex one.

Types of Macrame knots

There are many macrame knots, from beginner to the most advanced level. One of the most common knots which are considered for beginners to learn is the square knot. After learning square knot, you can move on to a half knot, which is also considered an easy one to understand.

There are dozens of other knots such as half knot spiral, overhand knot, lark's head, and many more, which fall in the advanced category.

Getting ready to knot?

Before actually starting the Macrame project, you will need some supplies.

- **Macrame cord:** There are many cords, but keeping things in the simplest possible ways so can by any cord; it can be twine, or it could be rope made out of cotton, hemp, jute, or may be synthetic material. It comes in many sizes, colors, and twists.

- **Support:** You will have to tie your knot, and for this, you need something to tie it and work easily. Some of the known choices are dowel rods, branches, hoops, or rings.

- **Scissors:** Scissors are also a compulsory item when you are playing with a Macrame cord because you will need to cut it time after time.

Important Macrame Terms

There are many Macrame terms, but the most important one to remember is below

- **Working Cord:** This is the cord or set of cords that are used to make the actual knots.
- **Filler Cord:** This is the cord or set of cords that your knots wrap around.
- **Sennit:** A knot or set of knots that are worked in repetition.

“Macrame-ing”: A Bit of History

Yeah, hand-crafted plant hangers, tapestries, and ornaments were in trend in the 1970s. But they are again making a huge comeback. This is also a fact that macramé art has been there for more than a hundred years. Let's talk a bit about the ancient roots of macramé craft!

The Origin

The early Syrians and Persian tribes would make their clothes out of knots back in 500 B.C. this is what historians think.

Macrame also has its roots in Arab. The early Arabian weavers back in the 13th century used different knotting skills to close the hand-crafted ends of their fabric designs. But decorative knotting can also be seen in 3rd Century China. Chinese people mainly used this art on wall hangings and ceremonial clothes.

While this might not be possible to determine the first-ever macramé masterpiece ever introduced, but we thank those 13-Century Arabian artists who helped spread this craft in Europe and then eventually, in the entire world.



When it comes to history, Arabian sailors also have a large stake in spreading this art in different regions of the world. Macramé knots had a really important role during their seafaring adventures. Decorative knotting also had helped these sailors sell goods and make money at different seaports. These are some of the sailors' knots:

Next came the Victorian era, in that, knot-tying became a popular work of art and hobby to beautify textiles and clothing. At that time, fine silk cords were used for creating unique designs.

Macramé art was also known as 'knotwork' during that era. Ladies took a special interest in this type of handcraft.

Historians write that in the 17th Century, Queen Mary II of England taught macramé craft to her ladies in waiting.

What's more interesting is the oldest evidence of macramé knots were discovered in the artifacts of the Assyrians and Babylonians. Their clothes had braided and plaited designs. The Moors from the North also shared their knotting techniques with the Spanish population. From there, these techniques passed to France, Europe, and Italy.

A New Breakthrough!

This art form was revived in the 1970s. In the United States, the 'Hippie

Movement' backed knotting. The most popular knot at that time was the square and granny knot. Hippies used natural materials like shells, bones, and handcrafted beads to create antique art pieces.

The new art form introduced the use of hemp, rope, and twine instead of fine threads and silk. Macrame work in full size became more popular. People liked hanging full-sized bearded Santas, owl images, and plant hanger to their front doors, near their fireplaces and verandas – and gigantic wall hangings!

Artists also sold handcrafted vests (made with) complicated knots, and the world loved to wear them!

Micro Macrame: Then the new decade introduced another trend. It was making cute teddy bears, stylish newborn outfits, and accessories. It also got a new name, “Micro Macrame.”

In this form of macramé, the knots were the same; only the use of fabric was different. Artists preferred using finer threads and cords once again!

In the 80s, the Tapestry knotting (also known as the Cavandoli knotting) became a hit. It was all about making a single knot, double half-hitch – horizontally and vertically. This created a solid (and unique) textile. Geometrical shapes were more popular in Tapestry knotting.

Small, tiny knots in chunky jewelry designs, especially necklaces, earrings, and amulets made out of metal and beads, also rose to fame.

Modern Macramé

Modern macramé art has an infinite number of possibilities. Like the new-gen, it is not bound or limited to one fabric, color, or design type. Artists are free and welcome to make anything out of their favorite knots!

This work of art can be highly noticed in South and Central America, besides others. The weaving and knotting techniques are similar everywhere. The design and thought behind (the vibe) is different – the complexity level is different.

Macramé art has broken all the barriers because now, it is not limited to making wall hangings or plant hangers only. The sky is the limit if you know even one type of knot. You can make anything out of it. From home decoration to furniture and from clothing to accessories – macramé art is ready to impress.

The biggest influence is seen in Hollywood. Actors, musicians, and models – all love and appreciate this type of artwork. You can spot macramé work even in movies, cinema, and boutique hotels everywhere around the globe. And the trend is often referred to as Boho Chic or Bohemian Style!

CHAPTER 2: WHAT ARE SOME OF THE POPULAR MACRAMÉ KNOTS?



Macramé craft is all about knitting! If you know these knots, think you know making macramé patterns of any kind. Here are some of the most popular knots people use around the world.

Popular Knots

The first and the most popular knot you'll need to know is the Lark's Head Knot. It is also known as a Cow Hitch Knot. This knot is used to attach an object to your macramé cord, such as a dowel, branch, or an anchor cord.

All you need to do is just fold your cord in half and quickly place the loop over the dowel rod and you are done. Now the second step is to gently bring the loop around the back and pull your two cord ends through the loop to tighten.

Reverse Lark's Head Knot

A Reverse Lark's Head Knot is done differently as compared to the previous knot we explained. This knot is done in reverse, and the bump is hidden in the back of the knot.

Now the complex step is to fold the cord in half and place the loop under the dowel rod. Now to keep it tight, bring the loop round to the front side and pull two cords through the loop.

Square Knots and Half Knots

A square knot is one of the most widely used macramé knots, and it can be created in two different ways, such as left facing or right facing. A half knot is not complex, and it is simply half of a square knot. As mentioned early, it can be right facing or left facing; all depends on the side you started your work.

Square knots are different from reverse Lark's head knot, and you need to have at least four cords; two of them will be working cords, and two will be filler cords, but you can have more if you want. The first and last cords are considered as working cords.

To make things simple, we will call them working cord one and the working cord four. The cords in the middle are called middle cords, and they

are known as filler cords, and we are going to number those two and three cords. These cords will switch places, but the numbering will remain the same.

Left Facing Half Knot and Square Knot

A left-facing square knot is known for a vertical bump that is present on the left side of the knot, which is finished.

First of all, take the first cord, which was working cord one, and start moving it to the right over the middle filler cords. There are filler cords two and three if you remember, and under the last cord, which is working cord four

Now you have to take working cord four and move it to the left under the two filler cords and overworking cord one gently. Pull these working cords to make it tighten; keep in mind that you have to keep the filler cords straight. This is called left facing half square knot.

The working cords have finally changed their places, with working cord one on the right and working cord four on the left. Now in the final step, take working cord one and move it to the leftover two filler cords and underworking cord four. Now take working cord four and start moving it to the right under the two filler cords and overworking cord one quickly.

In the end, to make it tighten, pull both working cords; just try to keep the filler cords straight. Now you are completely done in successfully making left facing square knot.

Right Facing Half Knot and Square Knot

A right-facing square knot is known for a vertical bump that is present on the right side of the knot, which is finished.

First of all, take the last cord, which is working cord four, and start moving it to the left side, over the filler cords which are, cords two and three, and under the first cord, which is working cord one.

Now you have to take working cord one and quickly take it to the right side, under the filler cords, and remember that you have to do it on overworking cord four.

Now pull both of the cords to keep them tight while keeping everything straight. Simply this is a right-facing half square knot.

The working cords have now changed their places and working cord one is

on the right and working cord four is on the left. Side. Take working cord four over to the right side, over the filler cords, and try to keep it under working cord one

Now at the end, take working cord one and move it to the left side, just going under the filler cords and overworking cord four.

Now pull both working cords to keep them tight. Finally, you are done with making the right facing the square knot.

Spiral Stitch

A Spiral Stitch is one of the most popular macramé knots. It is also called a Half Knot Sinnet, and some people call it Half Knot Spiral, and it is a series of half knots to make a spiral stitch. People take an interest in this knot because it is a decorative knot that helps to add a lot of interest to your project.

To make a spiral stitch, you will need to make at least four cords, which will act as two working and two filler cords, but you can also use more than that if you need it.

Just number these cords and remember them in your mind and number these cords one to four, moving left to the right side. Remember that Cords one and four are your working cords, and the remaining cords, which are cords two and three, will be filler cords.

These directions will help you a lot in making a left-facing spiral stitch, but you can also start on the right side if you are not comfortable with the left and use all right facing half knots.

Take working cord one in your hand and start moving it to the right side, over the filler cords but must keep it under working cord four. Now start moving working cord four to the left side, going under the filler cords, but you have to keep it overworking cord one.

You have to pull both working cords to keep them tight around the filler cords. Now keep making more and more half knots in the same way as described above. As you work and start making one after one, your cords will start to spiral.

Clove Hitch

A Clove Hitch, which is also known as a Double Half Hitch, is considered an advanced technique, and it helps to create lines in your projects. You can

use it in multiple ways, such as it can be worked horizontally, also diagonally, and on occasion, and even vertically if you want.

Horizontal Clove Hitch

A Horizontal Clove Hitch creates a series of knots that are used in the macrame project. In this knot, the first cord is remembered as the filler cord, and all the other cords are considered as working cords.

First of all, you have to take your left cord, which is the filler cord and try to hold it horizontally across the other cords.

Now take the next cord, which is your first working cord, and bring it forward quickly, up, and around the filler cord towards the left side to in making up a counter-clockwise loop.

In the second step, just take the same working cord in the right side of the first knot, take it up, over, and through the loop gently. If you have done it right, then there should now be two knots present next to each other. This is called a horizontal clove hitch knot.

Repeat these steps in making the clove hitch knots by using the next working cord around the same filler cord. Do the process again and again in creating knots until you have the design you were looking for.

Diagonal Clove Hitch

A Diagonal Clove Hitch helps in creating a series of diagonal knots in your project.

All you need to do is, take the cord on the left side, which is the filler cord, and try to hold it diagonally across the other cords.

Now Repeat steps two through four of the horizontal clove hitch; just keep in mind that you have to move down diagonally instead of straight across. Repeat the steps until you get the desired results.

Overhand Knot

The Overhand Knot is considered one of the most basic knots that helps to tie multiple cords together. You can do it with multiple cords or just one cord.

All you need to do is just fold the cord and form a loop! Now in the final step, pass the ends of the cords through the loop to keep it tighten.

Gathering Knot

A Gathering Knot, which is also known as a Wrapping Knot, is a finishing

knot that puts together all cords. We have seen these at the bottom of macramé plant hangers. There are only two working cords in this knot, and all the other cords are taken as filler cords.

Vertical Half Hitch

A vertical half hitch is considered a complex one, and if you are a beginner, then you have to practice a lot to get it done perfectly. There are many variations of the Half Hitch Knot. Vertical Half Hitch is mainly worked with two cords in which you use the left cord as the knotting cord and the right cord as the knot-bearing cord

The Differences

As a new learner, people can confuse different knot patterns and designs. This is one of the most common complaints people ask. Like they ask what the major difference between the square and granny knot is. How is a half hitch and double half hitch different, and so on?

So, here are some clarifications on this topic:




Difference between Square and Granny Knot

The square and granny knots are often confused. It is because both have the same steps involved. The only difference is in the sequence.

The square knot sequence is like the right cord over the left, the left cord over the right, or vice versa. However, the sequence followed for creating a granny knot is like this: right cord over the left cord and then again right cord over the left cord. Or left cord over the right one and again, the left cord over the right cord.

For more clarification, here is how you can make these knots:

Tie a Square Knot versus Tie a Granny Knot

Square Knot	Granny Knot
Twist your cords together	Twist your strands together
	
Do right over left	Take the right-side strand over the left, take it under, and then through the loop.
	

Now bring the left-side cord over the right-side and under it and then through the loop.



Pull tight, and the cords go in the same direction together



When you pull this knot tight, the cords go in different directions



Differences in Tying a Double/Two Half Hitch Knot and the Overhand Knot

People often ask why to tie a half or double half hitch and not an overhand knot when starting a project. Some also ask the exact opposite. Well, see the difference between these two knots here. This will help you decide on which knot is better for your project.

Double Half Hitch	Overhand Knot
<p>Wrap your cord around a stick/dowel</p> <p>Take the end under the (static) cord</p> <p>Bring it up, passing it through the loop's eye. Pull tight</p> <p>Takedown the static cord again</p> <p>Make another half hitch</p> <p>Pull tight.</p>	<p>Make a small loop in the heart of your cord, crossing the two halves you have</p> <p>Take the right side of your cord through the formed loop from the downside, then under and over the loop</p> <p>Pull tight</p>

CHAPTER 3: TIPS AND SECRETS OF MACRAMÉ CRAFT

Macramé is always known craft, and people love to discover it, but it is not as easy as it seems because you are required to put in a lot of effort and patience if you are a beginner and just starting your Macramé craft journey.

Here are the best tips and secrets of macramé, which will help you a lot in learning it in an effective way. Knotting is considered the key to master macramé, but before jumping on it, you have to keep some other things in mind first.

Start With Basic Knots

There are so hundreds of knots that may seem difficult to learn if you're a complete beginner. You should be starting with a couple of basic patterns and knots to get your technique down. The very first and easy knot to learn is a simple square knot. This knot is considered an easy one, and also, it plays a key role in making your base. Then, you can gradually jump on to the harder one. Workshops also recommend starting your journey in this way.

Attend A Workshop

If you have any workshop nearby in your area, you must go there to make things much easier for you. All the people there will be on the same page, and this type of environment is great to learn any skill quickly and also you will have a chance of making new friends related to your hobbies and interests and then working together will have greater chances of success.

Save Your Left Over Cord

When you are in a learning stage, you will make a lot of mistakes, and trying, again and again, will lead you towards your desired place. One of the biggest obstacles is to get the right length of the cord, and many beginners suffer in this stage. Always make sure to have more than 10% of the cord, which actually you think that will be required.

Keep this thing in mind, sometimes you will end up with extra cord left, but this is good for you because you can use it later on for some other project. So we highly suggest you save the cord.

Start simple

We always recommend beginners to start with a simple pattern, using just

square knots, which are somehow easier to understand for the people who are just starting their first project. Macramé bunting or a v-shaped wall hanging are the two most commonly practiced and helpful for beginners to start their macrame craft journey.

Find Your Tribe

One of the best approaches is getting involved in your local making community and search for nice local craft shops and cafes. Use this place to hold meetups and gatherings with like-minded people.

Social media can be used for almost any purpose, and you can use it for your cause to learn new techniques. Also, you can build your credibility related to macramé on social media and find and follow the people using hashtags that are on the same page. With this technique, you will find many professionals in this field, and by learning from them, you can achieve your goals.

Keep going

Every skill demands patience and consistency with a great inner passion for learning. There is no doubt that Spacing and tension are very important, especially when you are using the same knot to create the next level to create a pattern as you can easily see any unevenness. So if you start becoming frustrated, then this is not for you because all you need is to practice again and again to master.

After learning the Basics

You should always start with basics and start learning the basics with the hemp cord, which is quite easy to understand and also easy to undo knots.

After that, you have basic macramé knots down, now start with nylon cording. This can be used initially for your jewelry projects instead of using silk. For beginners, it is much easier to remove and learn from knotting mistakes.

For your work area, you should select the simplest project board. There are many reasons for selecting them. One of the main reasons for choosing this one is that you can take it anywhere you want.

It will also help you to work smoothly because it will be thick enough that pins will not go through. You can even choose a piece of polyurethane foam to make it more portable.

You always need to check carefully that the cord you are starting is totally fit through the holes of the beads.

The pro technique to keep ends from fraying is simply tied to a knot at the end of the cord.

Some people also prefer to use clear nail polish on the ends of the cord, which helps to keep them fraying. This technique also assists in stiff the ends, and this helps to string those tiny seed beads. If you can visit a nearby fabric store, you can try the “no tray” liquid. This works the same.

You have to practice and practice until you have a grip on uniform knotting.

Make sure to have t pins, but in case if you don’t have any, use corsage pins, which will help to secure your work.

Position

Knotting is a difficult and time-consuming process. So you need to keep an eye on your position while knotting. When we have big projects, our back starts hurting, and if you do not consider fixing this issue, then you will suffer from bad health later on.

To make your work area suitable for you, all you need to do is to put an adjustable clothes rail, which will reduce the efforts on your back. Do consider working in an open or ventilated area because when you are working with a macrame, there will be cotton fibers everywhere.

Experiments

Every skill demands patience and putting all of your efforts and remains stick to that with full focus. These things do value, but one of the main things which play a key role in any skill to be polished is experimenting with it again and again.

You will find yourself caught up, and your courage will keep you motivated, make mistakes and learn from them, and gradually, you will come back with better plans and a more advanced and unique approach to implement.

Learn to undo knots

Many professionals believe that for complete beginners in macramé craft, the idea of undoing knots rather than finishing off is way better and perfect for quick learning.

Do this before moving to the actual project

It's the best practice to learn basic knots first before moving onto the advanced one. If you manage to learn just one knot, which is the square knot, you will feel that you are now able to create a variety of different things that you can try with confidence.

Some more good knots to learn if you are just starting out are the larks head knot and the most known one, which is the clove hitch knot. Your target should be to learn these knots on a clipboard; when you have enough practice, and you are pretty sure about your skill, then you can move onto your actual project without any hesitation.

Before jumping to the project, you just need to have a good pair of quality fabric scissors in hand, many people advise you to take extra rope as much as you can, but it doesn't make sense because a lot of rope can put you in trouble and it will be a challenging situation for you to cut all at once when you get round to trimming. Also, you can use a sturdy comb for brushing fringing out.

People also have handy hooks that they try to add to their doors and to make it more advanced they even add nails to tops of door frames to be able to hang projects from, and the perfect example is plant hangers which is one of the easiest technique to work with the rope suspended.

Blinder clips

Blinder clips technique is considered one of the pro techniques, which is not suitable for complete beginners. Many people start their career from blinder clips, which is not a great approach, and no professional will suggest it. In blinder clips, most knots use four lengths of cord, but keep in mind that all of those lengths are not your working cord.

To make things easier, we will discuss this with a short example when you are learning to square knot or in the second case, which is a spiral square knot, you would clip the middle lengths of the cord to a cutting board.

But you can also say that a clipboard or you can also try a chopping board in which is present in everyone's kitchen so that you didn't have to worry about tension and you could just put all of your focus on the two lengths. You will be working to create the knots. With the passage of time, you will start getting used to it and would be able to manage without the clips.

There are many pro tips for beginners, but the most common one is that

every time you are going to start a project, you have to keep in mind that you always cut more cord than you actually think you will need.

If you would not consider this, then there are pretty chances of been caught short and had to unpick whole pieces and start again from scratch. Also, any excess yarn can be trimmed and used for tassels or fringing, so it won't be going to waste.

Figure out the length

One of the biggest challenges for a beginner is figuring out the length of rope you need for your project. The best suggestion you will get from professionals is to measure the length of your project, which you are willing to work on.

For this, multiply it by four, now you can cut your cord without having to be worried about anything. Most of the people will recommend you start by using a thicker rope, approximately 6mm plus; it is less fiddly when you're first learning the different knots and their structure.

Wall hangings

Macrame craft plays a key role in making wall hangings. With wall hangings, you should start in the middle and work outwards, and gradually adding more and more depending on which shape and structure you will like it to take. You don't need to be worried if something doesn't look according to what you desired; all you need to do is you can just undo it and start again.

Learn Online

There are hundreds of resources and opportunities available online; some of them will be free, and some of them are premium; even if you have feelings that you are now a pro in macrame craft when you visit this premium stuff, you will be stunned and amazed that how less you have learned and how much still you still need to learn.

And always remember to focus on your health and stop and stretch. Your first priority always should be your health. It can be harmful to your muscles, and if you don't care and don't pay heed to your body, then there are brighter chances of being caught up, and you can be left with long-term strains, so there will be no reason for regretting at that time.

Adjust workstation

It is your responsibility to find a macramé workstation that is suitable for

you. You can work while sitting up on the sofa or stand, but your tools will be helping you to make macramé and still be comfortable. Many people prefer to use a foam macramé lap board. You can also hang S hooks on a clothes rail to give it a try in making plant hangers and bigger pieces.

Cotton is considered one of the most favorite macramé cord because it's soft, and you can easily work with it; it comes in many different colors. You can also start out with chunky wool too though, and you will figure out that is also another good option; just remember that your cord size should not be more than 3mm.

Don't ever feel frustrated to knot again because the more you practice, the more polished skill you will gain to implement it on late use.

CHAPTER 4: 30+ MACRAMÉ PROJECTS FOR BEGINNERS



Macramé making is a beautiful hobby. It takes you a little effort to create something entirely unique and creative. Here is how you can learn and choose your very first macramé project:

The most basic things you need for starting your first project is a macramé cord, a pair of scissors, and a rod. You can select any type of rope, cord, or twine. Most people use ropes made of hemp, jute, or cotton. Choose a beautiful color to make your project more attractive.

As far as the type of rod is concerned, choose anything from a tree branch to hoops or rings. Rod is required for knotting.

Let's start with the macramé basics. Know that there are two types of cords: working and filler cords. The filler cords wrap your knots around, and the working cords are used to create your knots.

Start small. It is because you need a little practice before taking on a bigger project.

Macramé Keychains

It is a good idea to start off with keychain hangers. These keychain hangers are not only easy to make, but also they are small and easy to complete within a day or two.

Things Required:



Keychain holder/s (You can also use a keyring)

3/16" cotton cords

Beads

Yarn or embroidery floss

Small rubber band

You can choose any color for your cords.

How to do:

Take two 50" cord pieces

Loop each of them through the key holder

The outside strand should be $\frac{2}{3}$ the length of the rope/cord.

Use larkspur knot for this.

Make 5 square knots, add your bead (if you like)

Create a half square knot below the bead

Tie the remaining in a tassel

Trim and then separate your cords by the end

You are done. Add your keys to this new keychain!

Plant Hanger

Plant hangers made out of macramé look super amazing! It only requires

knowledge of some basic patterns and knots to make it. We shall use three basic knots for our hanger:

Square

Loop

Half square/spiral knot

Things Required:

15 feet long;3.1 mm thick cotton cord- 8 pieces

5 feet rope – 2 pieces

Brass ring 2 inches



How to do:

Gather your cord pieces

Loop into and out of the ring, folding in half

Take your five feet long rope and try to loop a knot below your ring

Take four strands to tie a square knot.

Repeat x 6

Do this again with another group of 4 strands; repeat for the other cords

Leaving a 2.5 inches gap, tie half a knot now

Keep going until you create a spiral of 5 inches

Do it again for the remaining groups of knots

Spare some gap to create a crossover square knot with 2 (right) cords from

the first group

Do this again with the left group. Repeat for other groups as well

Leaving another 6 inches gap, make a new crossover square knot.
Alternate your cords from the previous step

Leave some gap to tie a loop knot

Cut down excess for creating a tassel finish!

Macrame Bracelet

Who does not like jewelry? Macramé jewels are not only easy to make but also they look absolutely unique and beautiful. Here is a super-easy bracelet for any occasion.

Things Required:

Flower (fresh or fake; red looks amazing, but you can take any color of your like.)

Colorful jewelry cord

Cut your cord into two pieces: 72 inches and a 36 inches

How to do:

Fold your cords in half to make a small loop on the neck

Separate your strands and keep the longer strands outside

Tape the two pieces you see in the middle. It makes it really easy to handle them, this way

Pick the outer strand to the left now. Make them cross over the middle strands.

Now take the right strand and cross it over the left strand.

Cross this same strand through the middle strands

Create a knot and pull it tight on top

Repeat to the other side. You will take the outer (right) strand and cross it over the mid strands.

Now do this with the left strand.

Bring the strand to the left side up into the loop (right). Pull tight.

Continue your knots for four inches. Then, add your flower.

Place your flower stem on top of the middle strands.

Restart what you had been doing. And keep the red flower in line with the center strand pieces.



Knot the stem down now. You are finished!

Earrings

Look unique and different wearing macramé earrings. You can wear them in your daily routine. These jewelry pieces are easy and quick to make.

Things Needed:

Wire

Twisted cord

Hoop earrings

Fish hooks

How to Do:

This earring type requires you to learn lark's head knot. So check it out once again before starting.

Place your earring on a nice surface to start working.

Cut a 4 inches long cord, fold half around the hoop.

Bring the cord loop over the hoop and tuck ends around the loop

Pull tight and repeat with more cords.

Trim the ends, separate any twisted strands.

Repeat this method with another hoop to complete your pair.

Take a wire and brush your earring strands gently. Earrings are ready to wear!



Easy Macramé Market Bag

Use trendy macramé bags when you go to the market. Make it yourself to save money and impress your friends.

Things Required:

Macramé cord – 3 mm thick and 32-8 feet long single

Make two groups of 16 with this cord

Macramé cord 10-12 inches; take four pieces

Tape and crafting glue

How to do:



First of all, you need to braid your bag's handles. For this, choose the handle length. It is up to you. I chose 22 inches for handles.

Take each strand group (of 16) and loop it over the dowel. Then, line your ends up.

Measure 11 inches from the dowel and tape it.

Now flip this bundle and secure with a loose knot

Divide your cords into a group of four each. Start making a 4-strand braid from below the tape. This braid is super simple: cross two right strands; cross two left; cross the middle strands, and you are done.

Repeat till your desired length to create your bag handle.

Do the same with the other side after the first side is ready and untapped.

Make sure these two sides are equal in length.

To secure these braids, tie a knot with now

The rest of the package will be made with alternating square knots. Try to keep your rows even.

Leave some space and an inch between the knots

Drape the handles over your dowel and work on the two sides towards you. When done, flip this side and start with the other side.

Start from your left side, leave the first two strands and start creating 3 square knots

Leave some space to start another row of 4 square knots

Leave some more space and do another row of 3 square knots

Repeat this process on the other side

Straighten up your left and right sides

Make sure your connecting knot is even with the third row

Keep creating rows of square knots. Just make sure they are even

Now flip your bag and repeat the same process to the other side.

When it comes to attaching the knots, take the last two cords from each end and tie a square knot. Make sure it is in line with the 3rd row

Go down. Tie another square knot. Make sure this is in line with the 4th row

Repeat on the other side!

For a nicer finish, make more square knots alternatingly

We made 11 rows. You can go further if you like

Now tie the bottom with knots. Pull your knots tight. Cut excess and use glue on the knots.

Let your glue dry. Put your stuff into it when you go to the market, next time!

Fancy Necklace

Girls, as well as young boys, love wearing chains and necklaces. Should we tell you how to create your own necklace for the next party? Here is how:

Things Required:

Macramé thread (colorful is better!)

Beads of your like

The length of the thread should be your choice. Make sure the thread you need on the back should be 8 mm at least.



How to do:

Make a small loop and tie your first knot. It should be a regular knot.

Take the start from the right side. Let the longest thread crossover the smallest one in the mid.

Now take this thread to the left.

Take this left thread to the mid.

Continue and take it to the right.

Tighten the longest thread leaving a little lump to the left side.

Do it all over again. To make it swirl, start from the same side.

Repeat several times and put a bead. Make sure all your beads are the same length apart.

Continue to the end. Now take the shortest cord and pass it inside the knot and through the loop. Secure it well. Cut the excess loose thread off.

Your necklace is ready to wear!

Pretty Feathers

Have you seen tiny fairies? They have beautiful feathers, right? Do you want to create your own fairy feathers? Here is how:

Things Required:

Cord

Wire brush

Stiffening spray

tape

How to do:

First, cut your thread and separate different groups.



Length of your threads should be: 1 -24 inches piece and 12 inches pieces x 10

10 inches pieces x 10 and another 10 8 inches pieces

This makes a total of 31 threads

For smaller feathers, you need one 12 inches piece and six pieces x 6 inches; and four x 4 inches piece and 3 inches pieces x 4

This makes a total of 15 threads

Feathers should be wider at the foundation and thinner towards the top. Therefore, start with the largest pieces first and then take the descending order

Fold your largest thread and fold it in half

This piece will be the spine of your fairy

Take another long cord and fold it; place it under your fairy's spine feather perpendicularly.

Now take another larger piece and double it. Pull this loop through the first loop (make sure, not the spine). Pull it over the spine!

Take ends of your first thread and pull through the second thread's loop. Pull this tight to create your fairy's spine

Repeat these steps, switching sides. Take another longer thread and double it. Put your loop to the left side for this.

Now fold another cord and start looping to the left and pull tight.

Keep doing this on alternating sides: like first do on the left; then on the right; then, on the left and so on.

First, use all your longer cords; use medium-sized threads and then come to the smaller ones at the end.

Brush your feathers gently. This is done to make strands.

Now trim the excess threads and spray them. So they lay flat when you hang them

Macrame Table Runner

Table runners look pretty and attractive. They are an important part of your home décor. Here is how you can create a beautiful piece with a macramé.

Things Required:

Dowel, 12 inches

Rope x 22 strands (each should be 3 mm)

Door hooks

Twine dowel hanger 2.'

Pair of scissors

How to Do:

Tie your twine to each edge of your dowel and hang it.

Fold your first rope strand to make a lark's head knot. This should be created over the dowel.

Now keep adding each strand into it. This should make 44 strands since you folded them all in half.

Now try to pull your outer right side of the rope across the other ropes to your left. Drape ends. You have created the base now. Now create half-hitch knots in horizontal order.

Use your right side, second rope to create a single knot around this rope (the one you just draped). It should be 6 inches below your dowel.

Take the same thread to tie another knot over the base. This is again a half-hitch knot.

Make all your knots even. Now repeat this process with your second, third, and fourth thread from the outer side. Tie a half-hitch. You will begin to see a nice pattern now!

Continue tying your ropes all the way in a single knot. Do not make it too tight that it pulls all your edges.

Start again from the right side. Take the outer four strands to make a square knot. This should be around 15 inches below your horizontal knots.

Leave the next four strands and tie another knot with the ninth one.

Continue tying four strands and leaving the next four.

Restart from the right side to make a square knot with the four strands you're skipped. This should be three inches below the dowel.

Tie the set of strands you skipped earlier (square knots).

Pull the outer two strands to your right side. Use strand 3 through 6 and create a square knot. This should be below 11 inches of your horizontal row of knots.

Now use the next four strands for creating another square knot. This should be above the 1.5 inches of your last square knot.

Skip another strand and tie a new knot using the next strand. Continue doing this for some strands.

On the right, create a knot with those strands you skipped. Repeat with other strands that you skipped and finish your row.

Now pull the strands. Now take the strand 3 to 6 for creating square knots in the new row.

Now make another row of half hitch knots. The method is given above.

Make another row of half hitch knots to your left side. Use the same basic strands for this step.

Now create another row of square knots, skipping the first two strands to your left. Create another row of square knots after this. Pull tight so that there is no gap left in between.

Make sure you create 13 rows of square knots alternately. This is the center of your table runner.

Add a new row of half hitch knots now. Start this from the left side.

Fill till 2.5 inches and create another row of half hitch knots after this. This should go from the right to the left.

Leave out the outer two strands towards your right, tie a square knot from 3 to 6. Skip strands 7 to 10 and create square knots using strands 11 to 14. Repeat this process is leaving out every four strands.

Skip two rows and tie other strands 3-6 using a square knot. Skip the next four strands again. Tie a square knot with strands 11 to 14. Repeat this process until you create six strands to your left side.

Leave out the first two strands to your left. Create square knots to strands 3 to 6. This should be around 1.5 inches below your last square knot. Skip the next four patterns again. Create another pattern using square knots. Leave six extra strands to your left side.

Now measure 11 inches down the last row of your knots. Create a square knot on the right outer side.

Make some more knots around 1.5 inches above your last row. Repeat!

Lastly, create a row of half hitch knots toward the ending. Trim the edges with scissors.

Remove the table runner from the dowel. Slip your lark head's knots that you created in the beginning. Trim up all the excess threads you see here and there.



The table runner is ready!

Beautiful Hanging Vase

You might have seen vases on the table. Have you ever seen vases hanging down your walls? Here is how:

Things Required:

Small glass vase

Thick macramé thread – 3 mm and 30 m

Ruler for measuring and masking tape

How to Do:

Cut eight threads of 3.3 m each and cut one long cord of around 31.5 inches, and cut another thread measuring 55 inches.

Put aside the two threads having a short length. Align the ends of the eight cords, fold in half and find the center. Then, tie them using masking tape.

Now hold the taped group of cords. It should be below the taped area. Grab the 80 cm thread and hold it parallel.

Make a big loop on the longer section of your new thread. Wrap it around the group of cords you have. Fix your thumb on the tail.

Keep wrapping your cord till the head. Do not wrap tight. You can make a bigger loop if you want to.

Thread your cord into the loop and then pull it down. Pull and then cut the

edges of the wrapped cords.

Now divide your threads into the group. Make a group of four each.

You are going to start with the half knot twist sinnet. So, take one group of threads that you have and measure about 11.5 inches down.

Mark this measurement. You can use tape for this. Tie a knot overhead and pull tight.

Now pick your cord one on the left side, fold it over the other cords number two and three. Then, under the cord, number four on the right side.

Take this very cord number four and tie it under the first cord. Then, behind the cord, three and four. Fold it up now through the cord one's loop. You make a half knot twist here.

Repeat this process to make another bunch of half twist knots. Begin knotting to your left side. Doing this will create a half knot sinnet. Make around 12 half knot twists. Repeat this process with the other three cords.

Come 9cm down to make your basket using each group of cords. Tape it and tie the overhead knot under it.



Connect the two groups of cords that are near each other. Place them side by side. Leave out two threads per group. This is done to create another fifth group of cords.

Now get ready to create the Josephine knot. Before that, make sure your cords lay flat. There should not be any twists or tangles in them.

Now take two threads on the left. Make a loop with the thread that is behind this. Now bring forth two right-hand threads over the top of this loop.

Start looping the right-hand cords to the left-hand cords. Hold tight. Go back up and through the top-left threads.

Keep threading the same strands behindhand the actual loop. Now thread this over the loop and through the cords on the vertical left side.

This knot should be below 3 inches of the overhead knots. Make sure your

knots sit next to each other.

Keep joining and dividing each group of cords in this step. Do knotting with a group of cords that are next to each other for creating your vase bag. For your 4th Josephine's knot, you should join the two left threads with the two right threads.

Divide the group of cords again. Measure 6 inches below the new group, tape it. Tie three square knots now.

Start as you created your first twist knot. Pick your cord one folding it over the top of strands number two and three. Then, fold under cord four. Take this cord again and fold it below strand one and below cords two and three. Take it up into the loop that is made by cord number one. This creates your half twist knots.

Now create square knots. Begin with the strand to the right-hand side. Pick your cord number four and fold it on top of the cord two and three. And then, fold again under the cord one.

Keep this cord in your hands and fold it. Now fold it behind the cords two and three. Go up through the fourth created loop. This makes your square knot.

Repeat this process thrice. Do it over again with the newly created group of cords.

Now it is time to bring up all the strands at the baseline. So, divide your group of cords again. Make four different groups. Start creating square knots now.

This step will help join all the open cords.

Now start wrapping the bottom of the baseline. Start around 2.5 inches below the last group of knots. Do wrapping at least 18 times.

Cut the excess cords and tie each end of your open cord using overhead knots.

It is time to place your glass vase into this beautiful piece of art. Hang it in the open!

Macrame Stylish Shirt

Do you want to create something easy and nice? Something that can impress your friends and family? Here is the trick!

Things Needed:

Dyed Men's undershirt

How to Do:

First of all, cut off the hem to the bottom of this shirt.

Cut a straight line vertically

Make another cut an inch apart from this straight line

Keep cutting until you get multiple stripes

Knot the strands together

Take each stripe and knot it with its neighboring strand.

Repeat again to make a row.

This way, make different rows throughout the shirt where you made cuts earlier

Leave some fringes about half an inch above.

Your shirt is ready!



Boho Style Dream Catcher

Dream catchers look cute, don't they? Try one out here:

Things Required:

Cords

Ring 10 inches

How to Do:

Cut your cord pieces. These pieces should be eight feet long per piece

Tie each piece of cord with your ring. You should be using the lark's head

knot.

For this, fold in half your cord and put it inside the ring. Bring the ends of your cord on top of the loop and inside the folded cord. Pull tight!

Tie ten pieces into the ring you have.

To make your triangular section with square knots. You will take four strands to make this knot. The central two strands are your core strands; remember this.

Start making your knot from the extreme left.

Make a shape with your cord resembling number 4. This should be your far left cord.

Bring it under the core cords and the right strand.

Now bring the other cord up through the two center cords. This should also make the shape of number 4. Pull tight.

Now try to create a letter 'p' on the right side cord. Bring it over the core strands and through the left cord.

Do the same on the right side.

Pull tight and tug the two central cords.

Now create a row of square knots.

Now keep leaving out the strands on the row. This will create your triangle.

To do that, you should leave out two threads on the left side of row number two.

Knot the other strands there. Now use the two strands above (from each of the knots). You need to give it the lattice effect. Repeat this process until you reach the mid.

You will be leaving two strands on each side (per row).

Start making your diagonal hitch knot here. For this, pick the first strand on the right and then on the left. Lay it diagonal across your pattern.

Pick the next two available strands, take it down the diagonal cord, and through that loop. Pull tight.

Repeat this to make another knot. Use the same cords you used before. Now repeat these steps on the other side.

Go till the end of your triangle. This should create a U-shape now.

There should be two cords left in the very center now. Tie a half-hitch knot to these.

Let us join each cord that is hanging to the bottom of the ring. Here you need a double half-hitch knot.

This should make your knots directly attached to your ring.

Trim off the excess cords. Straighten them, and you are done! Now you can attach your dream catcher to your wall.

Macrame Rope Lights

Well, this is kind of different, isn't it? Let us tell you; it is not only different but also a very beautiful thing to make. You can use these lights at a party or brighten up your room with them at night when you feel sleepless.

Things Required:

Cords 35 yards or so

Lamp wire

Small vessel

Socket kit

glue

How to do:

First of all, secure your wire. Tape it to something that can keep it stable, like a secluded wall.

Look for the center of your cord and put it just behind it.

Bring the left side of this cord on the front (of the wire) and on the right side, making your first loop

Now take the cord on the other side and put it behind the wire. Pull tight on the left.

Repeat this process. You will be creating a spiral design. Make sure your spiral will move to one side. For this, you will keep one side (either right or left; do not switch them)

After the wire is completely covered, it is time to cover your socket. This can be done by using a copper, ceramic, or planter cup. To beautify, you can spray paint it!

Don't forget to make a hole in your cup!

Now join this treaded nipple to the base of the socket. For this, first put the washer, then your cup. After this, you will put the base onto your lamp wire.

Slide a little your lamp base and put some glue to stick it.

Blub is ready for decoration!



Beautiful Tassel Pillow

Things Required:

Macrame white cord – 12 feet length (total 16 strands)

Stick/dowel

Plain pillow cover 20 inches x 20 inches

How to Do:

Attach your cords to the stick/dowel and start threading

You should be using the reverse Lark's Head Knot

Begin making your first row of square knots. You will take two Lark Head's knots for making your square

Now you will create an alternating square knots pattern. Start from your left. Label each knot (as 1 to 16). This will be for your ease.

Now you should take your square knot number 1 and knot number 2. Make another square knot in the middle with the four cords you see.

Now go to the square knot 2 and 3 and do the same!

This way, you should get a full row of nice knots.

In the next row, you should take the first eight strands that you have. Make another square knot with the four strands to your left.

Do the same to your right side.

Now make the same knots in the middle. Repeat this process until you get a nice pattern

It is time for closing. Make a double half hitch knot on end.

Cut all the excess strands, leaving some fringes behind.



Take your pillow cover and attach this pattern to that. The best way to do this is to sew it. Otherwise, you can also sew it manually.

Cute Christmas Ornament

Christmas tree decorated with unique ornaments looks prettier. Don't buy ready-made ornaments, December. Try out this method instead!

Things Required:

Macrame cord

Pet Comb

3 inches long stick

How to Do:

Join six cords to the stick you have.

Use lark's head knot to attach it. There should be six cords hanging down the stick.

Make sure each strand is two feet long

Now start making your first row of knots. You should be making square knots.

Begin on the left. Make three square knots. These should be attached with four cords.

To create your square knot design, take one of the left-hand cords, and pull it in a way; it should look like number 4.

Now tuck the edge of the first strand you have. This should go inside the 4th cord.

Bring the edge of this fourth cord up and beneath the two middle cords. It should also resemble number 4.

Tighten these cords now. This makes your first square knot. Repeat in the other direction.

You should work with four strands every time. In the first row, make three knots.

In the second row, make two knots. Separate out the first two strands.

Now make only one square knot in the new row. Use the central cords only.

Make sure your knots are aligned and well-spaced.

Go to the new row; make two knots here. Pull tight. You should leave out two strands on each side.

Come to the next row, make three squares again.

Well, this part is optional. You can either close your ornament, making a half-hitch knot to the end; or leave out like (it is)

To make a half hitch knot, take the first cord and pull it across. It should be your lead strand.



Now from behind, take the second cord and pull it over the lead. Take it into the hole that you form. Do the same with the next cord. This is your half hitch.

Cut the excess strands on end. Brush them nice.

Don't forget to add a piece of the strand on top to hang your ornament.

Mini Plant Hanger

You just learned how to make a plant hanger. It looks cute – but a mini plant hanger looks cuter, and it is easier to make. Do try it, especially if you are a newbie!

Things Required:

Colorful Cords

Small ring

Mini plant pot

How to Do:

Cut four cords. You can choose your desired length.

Now fold them all in half. This should give you eight strands.

Make a knot through the ring. Make pairs of the eight strands you have. You should have four pairs.

Determine where you want your planter to sit. Make simple knots in the four pairs. These should have the same distance from the bottom.

Flatten your planter. Now separate your threads. Take one thread from each pair and join it with the other pair.

Start overhead knotting now. This should be 1.5 inches down from the 1st knot.

Separate your pairs once again. Keep knotting 1.5 inches downwards.

Join all the threads together about 2 inches below your last knot and create one overhead knot.

Trim ends as you desire.

Place your planter inside and hang it where you like. Enjoy the décor!

Minimalist Window Dangling

This is yet another interesting and beautiful project. You can hang this dangling even in your car. It would look cute!

Things Required:

Cotton rope – 75 ft. and 5 mm

Small tree branch

Masking tape

Glitter or colorful spray paint

Well, this is an optional thing (the last one). You may use them in the finishing. All you have got to do is to sprinkle glitter to your dangling or spray paint it for adding some funk!

How to Do:



Make pieces of your rope. There should be ten pieces of 7.5 ft. each.

Secure the ends of your cords with a tape so that it does not fray

Fold your cords in half now. Fasten them to the branch you have. You should use Lark's head knot for attachment.

Start from your left to make a column of six spiral knots. You would need the first four cords for this purpose.

Make another column of 6 spiral knots now. Repeat until you have five columns complete.

Make a row of square knots. You should get three knots. Do not forget to leave the first two strands before creating your row of knots.

When you touch the middle part, use all the cords to make your knot. Leave the two strands on the opposite side again.

Next, make five spiral knot columns. These columns should contain six knots each

Go forwards to make a descending row of square knots. In the first row, skip two cords on one side. In the second row, don't skip the cords. Skip two more cords on the outer (opposite) side. In the new row, you should leave four strands on the outside. Similarly, in the 5th row, you should leave out six strands, making only two knots.

Toward the end, you should only make one knot and skip all the other eight cords. This will help form a nice and unique pattern. The final knot should be in the exact middle.

Trim ends and decorates your bedroom with this nice window dangling
Simple Wall Décor



Walls decorated with macramé craft in your room or living look gorgeous. Just keep one thing in mind. Try to create something easier and smaller at the start.

Things Required:

Mini stick

Cotton cording

How to Do:

Anchor your stick so that it does not fray

Separate eight cording; while doing that, make sure all your cut cords at about 3x the required length.

Start making a lark's head knot now. Fold one of your cords in half and wrap around your stick. Keep the cut edges on the same cord, place them through the open end, and pull down way to make your first knot.

Do the same with each cord you have.

Make your mini decorative piece using a square knot. Starting on your left, separate four cords. Take the last cord of that side, lay it over the other three strands to create a four shape. Do the same with the other side of the fourth last cord.

Pull tight to get your first square knot. Repeat these steps again to create another set of square knots.

Do the same with another cording on the stick. This should give you a nice set of square knot rows across the stick.

Now comes the tricky part. You should be creating a diamond pattern now. For doing this, you will group together a set of 4 different strands. Or think this way, take the two square knots on the far left and start your pattern. Use the cords in the middle.

This way, make two more knots in this very row. Now come down to create another set of square knots.

What you will do is to create a new row of knots as you created in the first row. This should give you a sort of alternating pattern on your decoration.

Make as many rows as you like till the end. Cut any excess.

Attach a piece of extra cord on top to hang your masterpiece!

Lovely Christmas Tree

Small macramé ornaments placed in your drawing room or living attract attention. You can also make these ornaments for your little cats to play with. Here is how:

Things Required:

Macrame Cord

Small Ring

Beads

How to Do:

Cut pieces of your rope/cord

Fold at least six pieces in half and put them on one of your rings



Now take a separate piece of cord (a little shorter one) and create a gathering knot just below the ring

Fix your ring somewhere like on the wall/table. You can use masking tape for this purpose.

Separate your strands and make sure you keep six on each side.

Make a double half hitch knot using the five strands. Use the first inside strand as a guide.

Repeat on the opposite side. Cut a strand (2 x3 m).

Create another knot under the previous branch. Insert one of your strands next to your last double half hitch. You will make a Lark's head knot here.

Repeat this process on the opposite side.

Now insert one of your beads into the two strands in the middle.

Now cut a new strand. It should be 4x 2.5 m

Make another half hitch knot. Take the bead as a guide.

Create a Lark's head knot with the two strands that you see on the end

Repeat once again on the opposite.

Create a square knot in the middle. Next, make two more square knots beneath the first one.

Make three more square knots under that. Then, four and five more. Keeping in mind the sequence of rows.

Add your bead again. Use this string to make a double half hitch knot again.

Repeat this process. This should look-like a downward arrow. Close/secure this arrowhead by making a double half hitch knot.

Now cut another small strand. This should be 4x 2 m

Continue making a double half hitch knot and finalize your design with the last strand pair on each side.

Make a lark's head knot adding two strands on each side.

Skip the eight strands on the mid, go toward your left to make a square knot

Do the same on the other side. Now make another row of square knots. This should be in a nice sequence.

Start your count again to identify string number three. Use it as a guide and put strand numbers two and one onto it to create a double half hitch again. Repeat on the opposite side.

You will make a double half hitch parallel to the diagonal row of square knots. Close the remaining strands with this same knot.

Repeat once more. Cut another string that should be 6 x 2 m.

Make a double half hitch on the bottom. This should close the recent knots you made.

Repeat on the other end and place a bead now.

Create another row of 3 square knots on the left and right. This time, you should follow the ascending order. After you created 3 square knots, make four and then 5 square knots.

Use the two strands in the middle as a guide. Take the left strand and put it on the next nine strands to make a double half hitch knot. Repeat on the other end.

Next, make a square knot in the mid. Make two and then three square knots in the next rows.

On your left, take the longest branch, put 12 strands on it to make a double half hitch knot. Repeat this process again.

Create a horizontal row of double half hitch knots to close the design. It is up to you if you want to add a bead before it, you can.

Now trim your excess strands and tie knots at the end of each of the strands.

Your macramé Christmas tree is ready. Hang it anywhere you want.

Attractive Macramé Mat

Macramé floor mats can add a stunning look to your room. Do try this easy and simple but gorgeous design.

Things Required:

Hanger

Strands of cotton or twine

How to Do:

The first step is to tie twenty-three meter long strings onto a metal hanger with the help of using the lark's head knot, which is shown above. Leave spaces of 2-3mm between them.

Now in the second step, leave a space of approximately five cm below the lark's head knots and, starting from the left side, you have to take four strings and make a square knot. Now quickly make another with the help of the next four strings. Do it until you get a row of ten square knots.

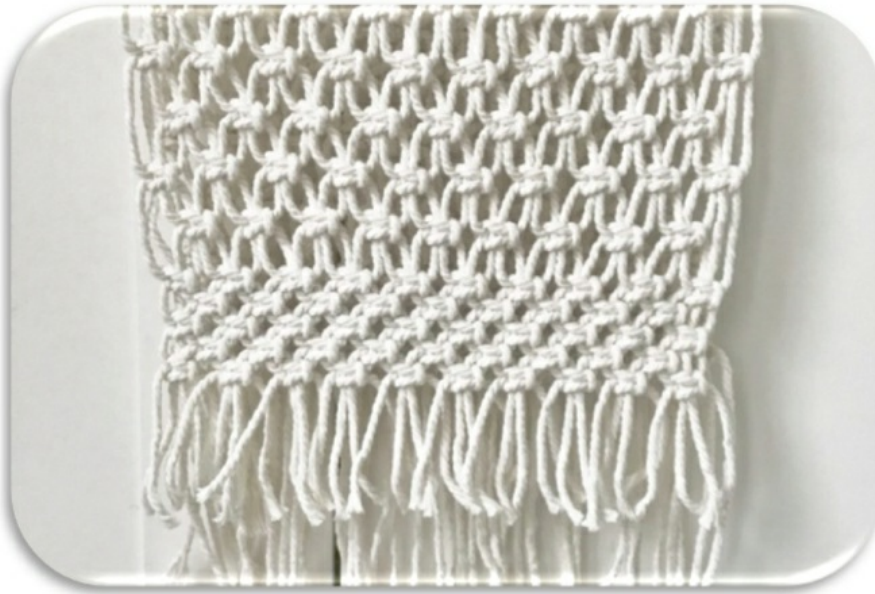
Now you have to make a row of 9 square knots. Starting from the left side, take strings three and four from the first knot and strings 1 and 2 from the one which is present next to it to make a perfect square knot. Keep doing this and move to the end of the row. You have to repeat steps 2 and 3 until you get five rows of square knots (the last row will usually have ten).

In the next step, you will have to leave a space of two or three cm and start following step 3 to make a new row of 9 square knots. Then, leaving a space of two or three cm, make a row of at least ten square knots.

You have to repeat step 4 until you get twelve rows, finishing with one made of ten knots.

Now you are almost reaching the end and in this step, make a row of ten, nine, ten, nine, and ten square knots without having any gaps between the rows to finally finish your design.

Now you need to move the placement from the hanger, and to do this, just cut the lark's head knots carefully, as shown in the figure.



Fold your placemat in half over the hanger and also cut down all the strings on each end to the length you are willing to have, making sure they are matching. Comb the ends to create a soft, feathery fringe to finish.

Mason jar

So you have gone through some of the basic macramé knots, and now you are prepared for a unique project to show off your skills.

This macramé project might be perfect for you because:

It usually uses regular mason jars (and most probably, you might have a seen bunch of those somewhere)

It is for beginners because it uses basic macramé knots – So don't expect complicated knots.

After completing this project, you can move on to an advanced level and start making macramé feathers.

People mostly like the jars because of their unique patterns and vintage look to them.

Mason Jars are so practical that they can be used in many ways at home. People use them for storing pantry items. Some people also just love displaying them here and there. There is something very unique and homey about a collection of beautiful mason jars.

Things Required:

Glass jar

Cords

Scissors

If you are looking for a way to slightly kick them up a notch or bring in some beachy, boho vibes to your decor – then you will love these macrame mason jars.

Here are the details mentioned below:



Macrame cord: Some people love this so much that they use this one daily for different purposes (you can make all these beautiful things just with one batch of rope easily, which is a great thing for beginners)

Scissors

Mason jars – You can have one larger one with a handle and one regular size to have both variants.

How to Do:

Let's start this project by cutting the cords we need.

For this project – You can make two jars. One regular-sized Mason jar and the other one larger sized Mason jar with a handle.

After collecting both of them now cut the cords all the same lengths for

both jars. You need to remember one thing in mind that you will have to cut off some excess on the regular-sized jar carefully at the end. But a pro approach here is to always have more cord than you required for your project to complete.

The larger Mason jar may have a pattern of one alternating square knot all the way around

For each of the jars, you will cord that is six feet long each.

Do remember that you will need six cords for the larger jar and eight cords for the regular jar.

The patterns for each jar vary slightly:

Your first jar, which was larger with handle (known as Larger in this project): If you remember that the Pattern is one alternating square knot all the way around.

The second jar, which was Regular Mason Jar (known as Regular in this project): Keep in mind that the Pattern is two square knots followed by sets of two alternating square knots all the way around.

1. To begin each jar : **Regular:** First of all, take two of your six ft cords and try to wrap them around the lip of the jar and then secure them with a single square knot. **Larger:** Now, take one of your six ft cords and carefully wrap them around the lip of the jar. Also, make sure to secure them with a regular knot.

2. Attach the rest of your cords: **Regular:** Take the rest of your six cords and attach them to your jar using reverse lark's head knots. **Larger:** Take the rest of your five cords and attach them to your jar using reverse lark's head knots. Evenly space the knots all around the lip of the jar.

3. Tie Square Knots: **Regular:** Make two square knots all the way around tightly. **Larger:** Make a row of one alternating square knot around the jar.

4. Keep continuing the Pattern down the jar: **Regular:** Now make a row of two alternating square knots. Continue these rows of alternating square knots until you reached your destination, which is to make it to the bottom of the jar. **Larger:** Continue with another row of alternating square knots all over the jar. Keep doing this till you have reached the bottom of the jar.

5. Now the Finishing line: **Regular/Larger:** When you reached the bottom of the jar, which was your actual destination, start cutting off some

excess rope but also leave a bit there, which you will use to comb, and it will add an extra fringe look.

That was it!

You can now use this for different purposes. Some people put some tea candles in their macramé mason jars for a nice glow.

Ball Ornament

This is the simplest technique to make this attractive DIY macramé mini ball ornament at home. All steps are mentioned to make it easier for you to understand.

Things Required:



1 Christmas Bulb (The bulb we used is of 8 cm diameter)

Eight equal lengths of yarn, ribbon, cord, or you can also take a string (We have cut down long arms lengths of approximately 120 cm)

Scissors as usual

Washi Tape (This is optional)

How to Do:

This project is helpful for both young and adults.

Your first step is to start by carefully tying the eight pieces of string together in a tight knot possible.

This step is optional. Suppose you want to like to tape the tail to a flat surface. This acts as an individual.

Now you have to pair the string in sets, and you also need to tie each set.

If you want to do it in an easy way, you can follow us; we tied our first ties approximately one inch or three cm.

Now you have to pair each of the strings with the piece to the side and also tie the next level of knots.

Keep trying until you reached the pattern length of the ball.

Now gently tie off the top of the ball.

Tie the top string to how much you desired for the length of ornaments.

By changing the colors of the string and ribbons, you can try different variations and create some unique DIY macramé mini ball ornament. If you are trying this with children, use thick, full-bodied yarn or cording. Small fingers of children work best with pliable fibbers because they are not too stiff yet.

Retro-Glam Pendant Light Fixture



This seems difficult, but you know what? There is just a repeat technique involved. One simple knot, and you can get a beautiful pendant light fixture. Here is how:

Things Required:

Glass bottle

Scissors

Lightbulb cage

Pendant light kit

Cords

Light bulb cage

How to Do:

You need to work with 22 cords. Measure the bulb cage length and multiple is by 9. You should decide the total length of your pendant. But the longer, the better!

Separate 22 cords and fold them all in half.

Secure one of the cords to the bulb. You should do this by wrapping one of the ends all the way through the top rim.

Pull the loose ends into the loop using Lark's head knot. Be sure both the ends should be the same in length.

Repeat this process using all the pieces of cords you have. You should get 22 knots this way. All these knots should be evenly spaced near the top rim.

Take a pair of two lark's head knots and tie a square knot.

Put the strand on the far left side onto the two middle strands and beneath the far right one. Do the same on the opposite side.

Now bring the far left string under the two middle strands and onto the strand on the far right. End this by placing the string on the far-right onto the mid two strands and below the left one. Pull this tight.

Repeat this process using Lark's head knot. Keep working near the top till you finish a row of square knots. Continue doing this.

Make sure you keep the knots in a nice shape. Once you are done, tie a knot at the end and trim.

We want our jars to be visible, and this is the reason for using alternating square knots. If you are looking for a method to cover the whole jar, you can also use a smaller-sized rope and make tightly weaved alternating square knots, which will help you a lot.

Macrame Clutches

Ladies! This is a nice project for you all. Simple, fashionable, and dashing!

Things Required:

Macrame Cords

How to Do:

Description: This Striped Clutch features picots along the edge of the flap. By using some different colors and shifting between left and right Square Knots, you will get a symmetrical stripe formed.

This is considered one of the easiest Macrame patterns, which are highly recommended as a beginner's project. The basic requirement is that you should have some experience tying both right and left Square Knots.

The finished size for this clutch purse is nine inches wide and six inches

top to bottom (in folded shape). You can easily make its different variations. For example, if you are looking for a wider one, you can easily make it by adding more cords.

In this example, **color A is light brown**, and **color B is turquoise**.

Supplies Needed:

Four mm cord material (fifty yards)

Tiny button for clasp (This is optional)

Project board with some pins also one tape and a glue

Preparation:

Cut twenty **color A** cords, make sure that each of them should be four yards long.

To make the Striped Clutch wider than nine inches, you will need to cut additional cords in sets of two, so it will help you to have an even number.

Cut four-color **B** cords, each of them should be four yards long.

Left Square Knot Picots

Step 1: First of all, fold two **colors A** cords in half and try to secure them at the center. You can visualize mentally and keep remember the number of the four segments as if they were four separate cords.

Now you have to Adjust the first half of the knot so it will help to rest 1/2-inch below the fold (also 1/2-inch picots).-

Cords one and cord four have changed their places place, so the direction is now changed for the second half of the SK.

Step 2: You have to repeat step one two more times, so you have a total of three picot loop designs (color A).

Step 3: You will need to repeat step one with two color B cords, with the help of creating one picot loop design.

Right Square Knot Picots

Step 4: Below are the instructions mentioned for **the right Square Knot** picot designs. Make at least **seven picots with color A**. You can create many more in this color because if you are willing, the Striped Clutch to be wider than nine inches.

Make one right picot design with **color B**

Step 5: Make sure to arrange all the picot designs on your board as follows:

Three colors A LEFT picots (steps 1 - 2), followed by **one color B** Left picot design, which was step three if you remembered.

One-color B RIGHT picot, which was our step four, followed by the **seven** picot designs made with **color A**.

All the extra picot designs you made will be placed to the right of the others.

Body of Purse

The Striped Clutch is made after making the rows of Alternating Square Knots. You should know perfectly the way of making the alternate cords before actually diving in it, so you have to do a lot of practice if you are not known how to ASK patterns work.

Keep in mind that you have to start on the left for every row, so the instructions make sense.

You have to put your complete focus on the direction of the SK (right or left) because the stripe made with color B is completely dependent on the direction changes. Just name forty cords and remember them in your mind.

Left SK: The very first working cord moved will be on the left.

Right SK: The working cord, which is present on the right side, is moved first.

Step 6: The first row is tied tightly, starting with cord three, which is present in groups of four.

The first four knots are **left SK** made with cords:

Three - six (color A)

seven - Ten (color A)

Eleven - Fourteen (color A and B combined)

Fifteen - Eighteen (color B)

Step 7: You switch to a **right SK** when you use cords nineteen- twenty-two, which is color A and B combined.

The remaining knots are all right SK, color A:

Cords twenty-three – twenty-six, twenty-seven - thirty, thirty-one – thirty-four, thirty-five – thirty-eight, thirty-nine – forty-two, and

Forty-three – forty-six.

Step 8: The second row begins with the four left SK, tied with cords:

One - four (color A)

Five -Eight (color A)

nine - Twelve (color A)

Thirteen - Sixteen (color B)

Step 9: Tie the first right SK with cords Seventeen - Twenty, which is color B.

The remaining knots are tied with the following cords: Twenty-one – Twenty four, Twenty five – Twenty Eight, twenty-nine, Thirty-two, Thirty-three – Thirty-six, Thirty seven - Forty, Forty-one – Forty-four, and Forty-five – Forty-eight.

Step 10: You have to repeat step 6, but before you do so, switch cords two and three.

Four, five, six.

Cord 2 needs to be used as a working cord one time, and this is the best place to do it.

Step 10: You will need to repeat step 7, but when you get to the last ASK in the row, switch the positions of the cords forty-seven and forty-six.

So the final right SK is tied with cords Forty-three – Forty-Seven.

Step 11: For the remainder of the Striped Clutch, you **will need to repeat steps 8 and 9** and then **repeat steps 6 and 7**.

You will need to repeat these steps until you get a design of 18 inches long (from the top of the picots down to the last row of ASK).

Stop on a row where you use cords three – forty-six (steps 6 and 7).

Here are some important steps to remember while you are working on this project:

Before you are starting to make rows, check to make sure that the **color B cords** are always in a group. It is quite easy to change positions of the cords around accidentally, and in this area, that seems BAD.



So you need to be careful and focused when you are in the striped area, and you will also need to pay close attention to the position of the cords.

Suppose you remember that in rows where you need to repeat **steps 6 and 7**, the two colors are mixed at the stripe. Just keep in mind that you always have to start the Square knot with the **color A** cord.

In the present case, that is cord eleven since you are tying a left SK.

If you are focused, then you will see that in the same row, the next mixed color knot also begins with the **color A** working cord.

In this case, that's cord twenty-two, since you are making the right SK.

So the final order you will have to follow is that the first FOUR knots in each row are all left SK, and the remaining are right SK.

Versatile Pet Leash

Pets do not like hard metals. It hurts their necks. Always try to use a softer fabric for this purpose like cotton, paracord, or something similar. You can make a pet leash at home using macramé. These macramé leashes look cool, soft, and versatile.

Things Required:

Two Paracords 550, 64 ft. each (OPTIONAL: Use two different colors)

Snap hook

Masking tape

Scissors



Glue

How to Do:

Attach the snap hook to a wall or table using your masking tape

Take one of your strands and fold it. Now fix it around the snap hook

Weave the edges of your paracord into this loop. Pull tight.

Repeat this using another cord. (You should get two Lark's head knots by this time.)

Take a stand on your right side and cross it through the middle (two) strands

Repeat on the other side. Cross the string on your left side inside the middle two strands and into the loop on your right hand. Tighten it. This should be your first square knot.

Now make a reverse knot. Do the exact opposite to the other side for this purpose.

Keep doing this: make a square knot, then make a reverse knot till you get a nice, long string.

To make your handle, roll the leash and then tie another square knot at the loose ends.

Make four or five more square knots to secure the handle.

After cutting the excess strands off, make a basic knot, and put some glue on the ends.

You have got your new dog leash!

Macramé Hanging Doll

Girls love dolls. Tall, short, blonde, black – they just love to see and keep

dolls. Well, you can make one if you are also one of those people who love doll collection. It's pretty easy to DIY it. Here is how:

Things Required:

Two paracords of different colors like skin and orange, (orange cord should be 16 inches)

String, 10.”

Wooden beads

Lighter

Black marker

How to Do:

Take a paracord strand of light color (like skin or brown). Fold in half and pass it through your bead. You can use a pin or needle to do this step.

Make a knot over the top of your bead

The bead represents your doll's head, and the folded strands on the bottom represent two legs.

Take the orange cord now. Fold it in half. Give it the shape of your doll's body (shirt). Pass the right-side strand through the left-side strand. Pull tight. This should make the end of your doll's shirt. Below this should be the legs.



Repeat to make another knot on the other side.

Keep knotting until you reach the head (bead). Pull tight.

You will end up having excess cords on both sides. These are your doll's arms. Tie a simple knot on each side. This knot will represent the doll's hands.

Tie two knots on each leg as well.

Cut off any excess and burn the feet and hands part of your doll a little with the help of your lighter for giving it a neat finish.

Take a black marker to make the face of your doll. You are done!

Mini Garland

For décor-loving people, this is a simple-yet-adorable macramé technique. Do give it a try. It looks cool!

Things Required:

Cotton cord/yarn

beads

How to Do:



Cut a cord for making your base. It should be 16 inches. You would need multiple cords per section. The length of your garland depends on you. So, decide now how many sections you want.

Folding your first strand in half. Place it inside the long base and start fishing its ends.

You have created your first lark's head knot here. Repeat this at least 7 x to make one of the sections.

Next, start making square knots in the first section. Take the first four cords from this section. Using the very first cord, cross it over the next two strands. Take the opposite-end strand now. Place it on top of the strand you just crossed over and through the two mid strands. On the other side, weave it through the loop. Tighten.

Repeat the same step on the opposite end. Repeat thrice more.

Once you are done creating four square knots in the first row. Go down a few inches below to create another row of three square knots. You should be left with two extra strands on each side that you have not touched upon.

Create two more rows. The square knots should follow a descending order. Like in the next row, you should have two square knots and then one square knot. This should make one whole section of your garland.

Move on to creating the next section. Add a bead first. Repeat all the steps that you took initially. This should create a whole row of your garland (with different sections separated by beads)

Leave out excess cords on both sides. Use these excess cords to tie your garland on the edges of your shelf.

Happy knotting!

Multi-purpose Accessory Strap



Are you an admirer of old stuff? Items like

traditional cameras and scopes etc., if you are one of those people, adorn your products using macramé straps. You can also adorn this strap around any purse, bag, mobile pouch, or laptop bag. Here is how you can make one:

Things Required:

Cords

Industrial strength glue

Swivel clasps

Clothespins

Pair of scissors

How to Do:

Cut two macramé cords. Both should be two yards each

Fold all the cords now. Plan pulling out the midpoints through the swivel clasp. Keep the longer ends on the outer part.

Now pull the endings of the different cords through their own loop, pull tight around the clasp part.

Start with a square knot. Take the longer cord on your left-side, cross over the two middle strands, and under the right one. Pull the right strand inside the two middle cords above and then above the left-side strand. Pull taut.

Complete your square knot repeating the previous step. Keep tying square knots until you get the required length.

Trim all the ends of your strap. Insert swivel clasp. Glue the ends. Fold the strap cords onto the clasp, hold with a clothespin until the glue dries up.

After the glue dries, place this macramé strap around your camera, purse, laptop, or mobile pouch.

Charming Ring

Ring-lovers should try making macramé rings for themselves and their friends. These cute jewelry pieces look amazing in their fingers.

Things Required:

A long piece of macramé cord/yarn – 1.20 meters

The round object like a bottle's cap (matching with the size of your finger so that the ring can fit in)

How to Do:

Half your cord and roll it around your bottle cap/round object.

Tie a knot at the ends. This is done to make sure your cord is equal in length.

Make another knot to secure the first one. You have taken the size now. Remove the round object, therefore.

Put the right string over the mid string. Take the left string to go below the middle one and above it. This is your first knot.

Mirror the same process on the other side.



Repeat this technique until you finish making a nice ring design. Cut excess and dab some glue to secure the last knot.

Super-cool Hanging Arch

Things Required:

Wooden branch/dowel

Macrame cords in 4 different colors, 5 mm each

How to Do:

Mind your cord measurements:

Row one: 3 x 195cm and 6''4

Row two: 3 x 255cm/8"4

Row three: 3 x 320cm/10" 6

Row four: 3 x 390cm/12" 9



Cut the required measurements. Now make your first Lark's head knot using the first three cords to the branch/dowel

Start making a square knot with your left-side cords. You should make an alternating square knot pattern in this design.

Take the next four cords and make an alternate square knot. Form at least 9 knots on this pattern to your left-side.

Attach this pattern on the other end of the branch/dowel to create a semi-circle. For this, take the first two inner-left cords and place them over the opposite side of your dowel/branch.

Now grab the right-side strand and take it over the other side. Do not pull it over the branch. Rather you will take it from the back to the front-side, and through the strands, you just pulled back. This looks like another Lark's head knot.

Make a simple knot to secure what you just made.

Now repeat step number one and two. This time, however, you should make 14 knots on the left side. For your row number three, make 18 knots and in the 4th row, make 21 knots. Connect this patch back to your branch. The shape should be a semi-circle.

Cut the excess cords on the back.

Repeat this method by adding the number of knots on the third and then fourth row.

Cut off any excess and use side-hooks to attach your work to the wall.

You can also make a rainbow-styled hanging arch by using seven different colors. This will rock your design.

Cute Boho Belt

Wearing a skirt or pants, some people feel incomplete without a belt. So, if you are a belt-person, this macramé design is for you.

Things Required:

Cotton Cord, 3 mm

Masking tape

How to Do:

Separate eight strings of macramé cord. Each one should be 12 ft. long.

To prevent fraying, tie each piece using your masking tape.

Use something to secure the eight strings. You may use a clipboard or a bigger hair clip.

Make sure you have 32 inches of cording above this clipboard/clip and 213 inches below it.

To start, use the set of four strings in the middle to make a square knot.

Make two more knots with the four strands to your left and right side.

Repeat this seven times to get 16 rows in all.

Now start weaving square knots to your sides. This should create an 'S' style.

Make a square knot on the left-side with the four cords in the first row. Start with the 3rd strand for knotting on the second row. Meaning, you will count the odd numbers for moving on (like this 1, 3, 5, 7, and so on).

Now on your right side, make a diagonal knot. Repeat to create six

diagonal knots in a zig-zag form.

Repeat making square knots again as you did earlier. You should get 10 knots in this step.

Repeat making the diagonal one more time.

Close the belt, making a double square knot. Repeat to secure the first one.



Trim any excess. Repeat this step on the other end. Tie simple knots on each cord to your belt's end. You are done!

Bohemian-style Gift Necklace

We taught you how to make a choker previously. This time, try out a chunky chain-style necklace and impress your friends. It makes a really nice gift. Here is how:

Things Required:

Long lace (leather or any other kind that looks good around your neck)

Cotton cords

Dye (optional)



How to Do:

Cut eight pieces of your cord. Each should be 3 feet long.

Fold these pieces and tie them each to your lace using a Lark's head knot.

Use masking tape to tie one of the ends of your lace so that your necklace does not move when you are working.

Next, you will be making square knots throughout. You should see 16 strands in total around your lace. Make four sets with these strands.

To make your square knot, take the first set of four cords on the left-hand side, cross strand one over strand number two and three, then through the fourth. Take the fourth cords then, looping it under cord number one on the opposite side and continuing it under cord number 2 and three. Come out through cord one on the left-hand side. Pull tight.

Repeat over the other side. This makes a square knot.

Use an alternating pattern of square knots to your top-side. Tie square knots for cords 1-4, 5-8, 9-12, 13-16. This should make your first row. Strands 3-6 and 11-14 should create your row number two. Then again, the first set of strands should create your third row and likewise.

Trim the excess and tie random knots on the hanging cords. Make sure you create a nice symmetric pattern of square knots in a triangular shape. But this is up to you. You can give any shape to your necklace!

For a nicer finish, dye the bottom of your necklace or spray some glitter.

You may also attach beads or sequins to add more funk!

Floral Backdrop for Events

Decorate your wedding stage with this easy and brilliant backdrop. This does not require a million-dollars to set – just some fresh flowers and macramé cords!

Things Required:

Fresh flowers of your choice. Leaves and grasses, twigs (you may also use dry/artificial flowers)

Cording

Dowel

Pair of scissors

Hot glue gun

How to Do:

Cut your cords and make sure you got cording long enough to fill your stage wall

Your cord can be 10 feet long. Cut 20 pieces of your cord.



You can extend this length if you like. You can also add more cords to both sides so that your design gets more attention.

Fold in half all your cords. Take one of the 10-foot strands now and place it under your stick

Make a simple knot. Taut. Now repeat this step with all the other cords. So that all of them get fixed on the dowel.

Focus on two loops, take the last piece on the right-hand side, and place it over the two strands in your middle. Let it go under the last strand on your left-hand side. Repeat the same process with all the cords. You should get 10 square knots by attaching each of the two neighboring cords. (like you had 20 cords hanging independently. But now you should have ten cords joined in pairs through your first macramé knot).

Square knots are not at all tricky. So do not fear. You are going to make square knots throughout this design. So, join a group of three knots to separate them from others. On your right side, isolate the two most outer-side strands, and then, on the opposite side, do the same. Do not use these strands. Use the other cords in between to make a square knot again. Repeat this to get a row.

You should be done getting your first section of vertical knots by this time. Make a new row of three knots again.

Repeat this pattern. Make sure your pattern goes this way: Row of three knots, then two knots, then you should have one knot. Again, two, three, and then, a half hitch spiral knot. Continue this pattern again.

Half hitch spiral knot is just added to give a different touch to this usual square-knot design. You may or may not use this – up to you!

Trim the excess cording. Tie the endings of each cord.

It is time to adorn this pattern: bring your flowers and leaves in! Get your glue gun out and attach your flowers here and there everywhere in the macramé curtain.

For hint: attach the bigger flowers and herbs/grasses near the stick/dowel. Give it the touch of a framed photo. Glue yellows in the first row, attach greens in the second, and reds in the third row. Repeat!

Thank you for downloading this book on Macramé art. It is an effort to help all the new people learn this form of art and enjoy it. It makes a great hobby.

It is also good for gaining a piece of mind and stay away from stress. Because it requires you to stay focused on your work. Keep going, keep knotting, sitting aside from others. It is also good for enhancing your creativity and artistic skills.

What's more interesting is you can also use this type of art as a profession. Make money with it. Here is how?

Learn some macramé ideas given in this book. Make them. Market them and sell out. This is actually a low investment craft. All you need is just some colorful cords, and that's it. (Sometimes, you might also require a dowel or beads or glue – but these things are not expensive, are they?)

So, what are you waiting for?

Just get your supplies ready and start your very first project!

In the end, I would like to remind you that feel free to share your comments, questions, and sincere reviews on this book so that we know how you find it. Thank you

CROCHET FOR BEGINNERS

The new comprehensive guide to master how to start crocheting with step by step and illustrated process.

Create astonishing patterns with the best tips and tricks

Marina Soares

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HISTORY OF CROCHET

The crochet begins as a single stitch, the slip stitch (single crochet in British terminology). In the cooler northern climates, from Scotland across Scandinavia and through Eastern Europe, slip stitch with wool was used,

turning southward through Estonia and down into Bosnia. It was made from wool to make soft, waterproof clothes. The most popular were mittens, underwear, and vests.

For mittens, to make them waterproof, the wool was always full or rubbed vigorously. Today, in a few areas, the same materials and processes are still used to produce some of the same products. When warm clothing made from heavy, sturdy fabrics was required, there was not much opportunity in these areas to manufacture products with decorative lacy stitching.



In the early 1800s, in the colder southern regions of France, the Netherlands, and Germany, slip stitch was used to make personal accessories, such as miser pockets, purses, and tobacco pouches. A sturdy cloth was required, while warmth was not required so that objects did not spill from the bags.

Early miser pockets, purses, and tobacco pouches were worked in different colors, and only in the back loop was either worked in rows or in the round. The job often had to be conducted from the right side when operating in rows, so the yarn had to be split at the end of each row. In slip stitch, crocheters could not transform the job, so the layout in the colorwork would get lost. Working in the circle was copied from knitting and was done as a tube, working only on the right side with crocheters again.

Either the open end was collected or folded in half and sewn. Miser bag designs (1835L patterns for collars and baby's and women's caps) were also written in German and Dutch within ten years of the earliest published.

To make these accessories more decorative, the chain stitch and the single crochet stitch were introduced. This type and pattern permitted more variety; crochet was no longer limited to solid tubes and straight bits. The chain stitch allowed the development of chain mesh and corners. Chain meshes are lightweight, and as the mesh would curve around the neck, collar patterns became common without increases in the torso. But these necklaces were plain, consisting of mesh body stitches and "ladders" chain for the edging (chain a few, then single crochet in the single crochet below).

The caps were just as plain. To make a flat circle for the crown, single crochet, which had some height compared to the slip stitch, increased the number of stitches in each round (a technique borrowed from knitting). For slip stitch alone, increases were not necessary. Crocheters used the same technique as slip stitch crochet for the brim-a a rectangular segment employed on the right side only with yarn split at the end of each row, except that they made brims with chains and single crochet stitches.

The next major breakthrough happened ten years later when Mlle arrived in 1846 and 1847. To replicate raised Spanish needle lace, Riego de la Branchardiere published patterns in England. The lace was not only three-dimensional, but it was often worked forward and backward, taller stitches included, and worked around both top loops.

A full crochet base was in existence, as we know it today. So how in 30 years have we gotten from plain slip stitch to intricate three-dimensional crocheted laces like Irish crochet? There were four variables involved: materials, equipment, women's education, and transport, all of which were the product of the Industrial Revolution. Lacemaking was a specialized art performed by individual employees until the Industrial Revolution; all lace was handmade. Machines were developed during the Industrial Revolution that could easily produce large volumes of good-quality lace. Machines took over industrial lacemaking, and it became a hobby, for the most part, to make handmade lace. The only crochet lace to succumb to modernization was (and, in fact, did not get a good start until the advent of the Industrial Revolution). That was the one spot that machines could not duplicate, and other lace styles could be made easily. The rich's costly handmade lace became the elegant Irish crochet; these crocheted dresses commanded prices equivalent to around \$20,000 in today's currency.

When people's fundamental needs are satisfied, their spare time is used to produce art and luxury. As a requisite talent and recreational hobby, upper-class women have long practiced needlework. But the Industrial Revolution provided more time to working middle-class women to use what they pleased; usually, on Saturday and all day Sunday as leisure time, a working woman might demand a half-day, whilst elsewhere in the day, a homemaker would find a few spare minutes.

For upper- and working-class women, crochet was a hobby of choice because stitches were simple and easy to practice, and crocheting only required an inexpensive crochet hook and yarn/thread. Crochet took off by merging it with the need of women to be fashion conscious.

CHAPTER 1– THE RIGHT EQUIPMENT

You'll need some basic equipment before we start. This contains crochet needles, shears, thread markers, a row counter, and a yarn storage bag or tote,

works in progress, and supplies. It's not important for you to waste a fortune on high-quality equipment. Everything you need to get started is a decent set of aluminum crochet hooks, a decent pair of shears, and some basic stitch markers. We'll discuss the basic equipment you'll need and the best way to use it in this chapter.

Crochet Hooks

From very small, almost needle-like hooks used for yarn to large hooks used to make rugs, crochet hooks come in different sizes. I suggest buying a high-quality hook package of sizes from US E to US K for the beginner. For other skill levels, these are the sizes used for most designs. If you have trouble with arthritis or gripping a hook, you will use hooks with support grips. You may also use clay to make your handles. Steel, bamboo, assorted woods, and plastic are some of the other materials used for hooks. For beginners, a high-quality collection of aluminum hooks is suitable and will fit you for several years.



A hook from crochet is pretty straightforward. Many hooks have an indentation called the grip or pad in the handle that you use to grip the hook. Two simple forms of lips and thread guides exist. There is a more rounded thread guide for the Boye hooks, while the Bates hooks are more angular. A strictly personal choice is which sort of hook you use. I've used both forms, and I can't really say the difference between the two. Though, some diehard supporters swear by their favorite brand, so check them out and see the ones you want.

You may want to try out Tunisian crochet while you improve your ability. For retaining the stitches, this style of crochet uses a long needle. A long

knitting needle with a crochet hook on one end looks almost identical to it. Tunisian crochet hooks with a broad piece of plastic or metal used to carry several stitches can also be found. These look identical to circular knitting needles on one end with a hook. Circular Tunisian crochet needles, such as a king-size Afghan, are used for very large creations. Double-ended crochet hooks can also be used. Similar to Tunisian crochet, these are used with more sophisticated techniques.

Crochet Hook Sizes

In several sizes, crochet hooks come in. Steel hooks with very tiny hook sizes are used for delicate thread and lacework, as I described before. Unlike other hooks, metal hooks are sized accordingly. You must note when using steel hooks that the higher the number, the smaller the hook. The largest hook scale, for example, is 00, while size 14 is the smallest.



Some designs use hook sizes ranging from US E/4 (3.5 mm) to US K/10.55 (6.5 mm). Both the letter size and the millimeter size are used in patterns. To link to the different hook sizes, use this useful map from the Craft Yarn Council. If you notice trends not written in US terminology, this map is also a helpful guide.

How to Hold a Crochet Hook



When it comes to catching a crochet needle, there are two schools of thought. One is the hold for the pencil, and one is the hold for the knife. As the names mean, you'll keep your hook like a pencil if you have a pencil holder. Keep the hook if you have a knife, as you can hold a table knife. Both techniques are right, and the same stitches are created by both techniques. It's up to you whose grip you use. Check all of them out to see which one you like the most. Like a pencil, I have always kept my hook. That is how I was taught by my mother and grandmother. But in all of his video tutorials, Mikey from The Crochet Crowd employs the knife hold, but we all end up with the same finished product. And don't let someone tell you that you're mistaken about keeping your hook. It's good either way; just do what feels right to you.

Stitch Markers

When crocheting in the circle, stitch markers are used to mark the beginning of a pattern repeat, the beginning of a round, and color changes. From plain plastic clip-on ones to ornate beaded ones, you can find several different forms and designs of stitch markers. You may also want to try your hand with safety pins and beads to make your stitch markers. I even used a bobby pin in a pinch or a matching strip of yarn as a thread marker. Only make sure to use disposable stitch markers so that you can not crochet them onto your job.

Other Equipment for Beginners

You'll need a pair of scissors that you'll only need to cut wool, thread, and cloth. Let everybody know that these shears are hands-off in your family and just for your crochet work. This keeps them sharp and sweet. Cutting paper will make shears boring, and you will note a major change in how they are sliced as you go to use them.

Another useful little instrument to have is a row tracker. To keep track of the row, you are on in your pattern; you use it. Many designs have repeats of rows to achieve the right look. In several different types, row counters can be found. By writing down the row numbers or using hash marks, you can also use a sheet of paper and a pencil to keep track of the rows.

To store your crochet supplies, you may also want to buy a purse or tote. It will keep the creations away from little hands or paws that are curious. I've got cats, and I have to carry a closed tote with my thread, materials, and works in progress. So I wanted something with a locking top to keep them out of all, so my cats love to investigate boxes and bags. You will want to get some durable shelving to organize your crochet supplies while you develop your yarn stash and skills. I dream of making my guest room into a craft room, and I still look at the many designs on Pinterest. Can a girl imagine, right?

This is a concept that is handy!

Written Patterns

A whole world of projects is revealed to you with the opportunity to interpret a written pattern. A standard format meets most written patterns and uses a structured set of abbreviations. For abbreviations used in today's patterns, refer to the table in the previous chapter. We'll go into how to interpret and work a written template in this chapter to help you familiarize yourself with them so that you can read and crochet them with confidence.

Reading a Written Pattern

Skill Level The difficulty level is one of the first things you want to review when you see a pattern. While it's interesting to stretch yourself to attempt patterns a little higher than your standard of competence, beginners don't want to tackle an advanced pattern because they're likely to get overwhelmed and have a rough time interpreting the pattern. At or just above your skill level, adhere to trends. Your ability level will gradually improve when you find out more trends.

Materials Needed

The materials you need to run the pattern are the next segment to pay careful attention to. You can swap the yarn if the pattern asks for a certain yarn, and you don't have the yarn as long as it is the same weight as the yarn asked for in the pattern. For starters, if you are trying to crochet a baby object and the pattern calls for baby weight or lightweight yarn, if you are using a worsted or medium weight yarn, the pattern would not work out correctly.

Gauge

Test the pattern gauge and draw out a tiny swatch. The gauge applies to how many stitches a four-inch row has and how many rows are four inches long.

Compare your swatch to the gauge specified on the pattern, and you may need to go up a hook size or relax the tension if your swatch is smaller. If your swatch is too big, go down or tighten your tension with hook size.

Special Stitches and Notes

Check for any unique designer-provided stitches or instructions. These would clarify any stitches that are not normal that the author has used and whether the abbreviations are included in the pattern. The planner makes the instructions to assist you in figuring out the pattern and understanding the project construction. Lastly, look at the model itself. Read it over to make sure that all abbreviations and words used in the pattern are known. Take the pattern line by line, and when you run it, don't skip forward. When you work a pattern several times, the instructions will become apparent as you crochet.

Pattern Repeats

Not every guidance in a pattern is written out absolutely. To denote unique stitches that are repeated in a row or circle, designers use pattern repeats. Repeats of patterns may be denoted with asterisks, brackets, or parentheses. For instance, you can repeat the stitches between the asterisks as many times as defined in the pattern if you see ch3, sk 1 st, 3dc to the next st. At the first asterisk, remember to start a pattern repetition and work to the next one. Go back and resume again at the first asterisk to operate on the repeat.



At big yarn sites like Red Heart, Lion Brand, and Yarnspirations, you can find lots of free patterns online. For free and paid designs, Pinterest and Ravelry are both excellent tools. On YouTube and other pages, there are also a number of free tutorials to help expand your skills and learn new techniques.

How to Read and Crochet a Diagram and Chart

Crochet diagrams and maps are used instead of printed patterns and in combination with them. The ability to work a pattern regardless of what language the written part might be in is one of the best benefits of learning how to crochet from a diagram or map. There are also very beautiful Russian and Japanese diagrams and charts, and you can work the patterns by following the diagrams and charts even though you can not read those

languages. I also included a table of the most common symbols used in diagrams and charts in Chapter Three. These symbols are fairly standardized and used around the world by artists. There may be special symbols given by the author for certain diagrams and maps, so make sure you look for any notes included with the diagram or map.

Diagrams vs.Charts

The terms diagram and map used can be heard interchangeably. And though this is correct, diagrams commonly apply to crocheted projects in the circle. Typically, maps refer to designs crocheted in rows. The same symbols are used for all pattern forms and are read in a similar way.

How to Read a Crochet Diagram

Visual depictions of a crochet pattern are diagrams. Crochet diagrams are read in a counterclockwise orientation from the inside out. Start in the middle and find your way out by reading the symbols for each round. You can see the motif starting with eight chain stitches coupled with a slip stitch in the following illustration. The next round starts with four chain stitches and the same chain stitch with a double crochet stitch. In each chain stitch, a V-stitch has worked around and then joined into the 3rd chain stitch of the starting chain of chain 4.

Beginning chain and Round 1

Round 2 starts with a slip stitch to the first V-stitch space of chain 1. Proceed this until the first chain three is met, and the slip stitch slips through the round's first slip stitch. Just when you knit, try to read the diagram counterclockwise.

Beginning chain, Round 1, and Round 2

Looking for the strong dot that stands for the joining slip stitch of the previous round is the best way to locate the beginning of around. Arrows that

tell you where to begin are used in certain diagrams, but some do not. Try to figure the diagram out when you go in a counterclockwise direction. For this motif, this is the complete diagram.

There are four rounds to join, each of which finishes with a slip stitch. (In circles, the starting chain is generally not counted.) Round 3 continues with chain three and a cluster stitch in the space of the first chain 3, through the next single crochet, chain three, and single crochet. Repeat this around the motif and connect the first chain stitch with a slip stitch. Round 4 starts with three single crochets in the first space of chain 3, one single crochet in the eye of the cluster stitch, three single crochets in the next space of chain 3, and one single crochet in the next single crochet. This is replicated around and then joined into the first single crochet with a slip stitch. You can see how following the diagram makes it possible to imagine what the project might look like by contrasting these written instructions with the diagram.

How to Read a Crochet Chart

Crochet maps are digital illustrations of crochet designs as well. In rows, diagrams are read and worked from the bottom up. Typically, the base chain is not counted as the first row and can be represented on the map or not.

Note that the odd rows are read from right to left, and the even rows are read from left to right to make maps easy to read. Start in the chart's lower right-hand corner and work the rows up the chart while you crochet. To help keep you on track, it's a smart idea to use a highlighter, marker, or some other way to mark the rows you complete.

An example of a simple chart is here. To help you learn and understand it better, the rows are different colors. Start with Row 1 from right to left and read it. Chain 3, work every chain stitch with double crochet, transform your

work. From left to right, row 2 is read and starts with chain 4. For the next stitch, skip one stitch and double crochet. Chain 1 and skip one stitch and work a double crochet in the next stitch and work a double crochet in each of the last two stitches in the path.

From right to left, row 3 is read and continues with chain 4. Miss the first double stitch and work a double stitch in the next gap of chain one and chain 1.

For the last two stitches, repeat around the row and double crochet into each one. Change the career around.

With chain 3, row 4 begins. Double crochet one space into each chain and double crochet around the row each time. Fasten the tails off and weave them in.

Completed Chart

For certain patterns, maps are used. For a map, nearly any pattern that is worked in rows can be worked. I like diagrams because they help me see exactly where the stitches are heading and give me a clear idea of what the project is meant to look like when I work. You will see a map of a simple ripple pattern in the next example. Compare the map to the original crocheted fabric sample.

Pattern Repeats in Charts

If you look at the previous ripple pattern example, you can see that a portion of the graph is marked as a pattern repeat. Designers, just as they do in printed patterns, use pattern repeats in maps. Pattern repeats are used to make charts easy to read instead of displaying the whole line.

If you see a sequence repeat in a graph, care in a written pattern is much like one. Start at the point where the repetition begins and work to the point where the repetition stops. Now go back to the beginning of the repeat on the map

and function as many times as stated again to the end of the repeat.

Row 1: Dc to 4th ch from hook dc to next threests, dc3tog, dc to next threests, 3dc to next st repeat to last st, 2dc to last st, transform Row 2:ch3, dc to 1st stdec to next threests, dc3tog, dc to next threests, 3dc to next st repeat to last st, 2dc to last st, turn Repeat Row 2 to the desired length.

Care to read odd rows from left to right and even rows from right to left. Start at the bottom right-hand corner at all times and work your way up a map.

CHAPTER 2– KNOW YOUR YARN

There's a confession I have: I love wool. Yeah, I said it there! I'm sure you'll be a yarn addict, too, until you experience all the various fabrics, fabrics, and colors out there in the yarn universe. Invest in high-quality yarn when you started, but don't break the bank. Although hand-weaved, hand-dyed artisan yarn is a gift and a dream to work with, when you're more secure in your ability, save this sort of yarn for later. There's plenty of medium-priced yarn of decent quality to be had in a wide range of colors and textures.

We'll go through the various types of fiber used to produce yarn in this chapter and how to read a yarn mark.

Yarn Fibers

There's a confession I have: I love wool. Yeah, I said it there! I'm sure you'll be a yarn addict, too, until you experience all the various fabrics, fabrics, and colors out there in the yarn universe. Invest in high-quality yarn when you started, but don't break the bank. Although hand-weaved, hand-dyed artisan yarn is a gift and a dream to work with, when you're more secure in your ability, save this sort of yarn for later. There's plenty of medium-priced yarn of decent quality to be had in a wide range of colors and textures.



We'll go through the various types of fiber used to produce yarn in this chapter and how to read a yarn mark.

Animal Fibers

Examples of the different animal fabrics used for the manufacture of yarn include wool, alpaca, Mohair, Angora, and silk alpacas. Wool is a very common alternative which provides fluffy cloth with plenty of warmth and lots of presents. The wool originates from sheep and is available in several different shades and weights.

Alpaca wool comes from an animal of the same name, which has a little brilliance in it. It is very warm and soft to the touch as well. Alpaca yarn is a good alternative to wool, and there is a soft drape on the cloth.



The fibers used for mohair yarn are provided by goats. Soft mohair yarn comes from young goats, while older goats grow coarser Mohair. Young goats yarn from Mohair, while coarser Mohair comes from older goats. With very bright colors, Mohair yarn can be dyed and keeps these colors very well. Cashmere wool is made from the underbelly fur of a special breed of goat. The Angora wool comes from the rabbit Angora. The two yarn styles are very luxurious and soft. Beautiful drapes are also available with both styles of yarn. Such yarns are very pricey and a real pleasure to use. To give the yarn strength, shine, and texture, silk fibers come from the

silkworm and are typically blended with other fibers. Silk is a very beautiful yarn addition, and you will find some very beautiful.

Plant Fibers

It is a very solid yarn made from plant fibers and retains color well. Before you get used to them, plant fiber yarns can be a little rigid to work with, but they are suitable for making kitchen and bath products as well as summer clothes.

Flax field

To make a very sturdy and resilient cloth, cotton fibers are used. It comes in several different weights and can be used in lacework and doilies for delicate cotton threads to the heavyweight yarn used for rugs and mats.

Bamboo is often used to manufacture a very solid yarn with more shine than cotton. Bamboo thread crocheted fabric has a really good stitch description and a nice drape.

To make a linen thread, flax fibers are used. For summer clothes, linen is an ideal alternative because it wicks out moisture, and the fabric breathes. It is very robust, and in several colors, it comes in.

To make another durable plant-based fabric, hemp fibers are used. In any project which calls for cotton or bamboo, hemp yarn can be used. It comes with a full spectrum of colors and textures.

Synthetic Fibers

Acrylic is one of the most common kinds of yarn. Acrylic yarn is made from fibers based on synthetic petroleum. It is durable, and very easy to work with, and can be colored in several different colors. From small fingerling yarn to broad chunky thick yarn, there are several different types of acrylic yarn. Most textures even come with acrylic yarn. Working with it is simple and has some give, making it the best option for the beginner.



Acrylic wool with sequins, crystals, and other embellishments can be found here. Eyelash yarn is a fun acrylic on which to work. It has small fibers that mimic eyelashes and are used on many projects with other kinds of yarn to make beautiful embellishments. Fun fur is another acrylic wool that's fun. With this sort of synthetic yarn, you can easily make faux fur pieces.

Variegated Acrylic Yarn

Nylon, polyester, and microfiber are other forms of synthetic yarn. To add elasticity, sheen, and texture, these fibers are usually blended with other forms of yarn.

Yarn Weights

From fingerling used for lacework and infant goods to ultra bulky, wool

comes in various weights. Yarn producers use a structured method for the yarn weight. The Craft Yarn Council has a helpful map that displays the yarn's varying weights and what they are used for.

Yarn Label Information

For your creations, the yarn mark is the place to find all the details you need to pick the best yarn. The fiber material, weight, dye lot number (most yarns do not have dye batches, but some still use them), treatment, gauge, and prescribed hook size can be seen on a yarn mark. For a novice, knowing the data on a yarn label is important. We will discuss the specifics found on yarn labels in this chapter so that you can make the right decision when shopping for yarn.



A collection of uniform symbols for yarn treatment is used by most global yarn suppliers. These symbols can not be used by artisan and private label yarns, but most brands, such as Red Heart, Lion Brand, Caron, Paton, and I Love This Yarn, use these generic symbols. On the Lion Brand section, you can find the full list where you can print them out for quick reference.

We can see in the following illustration that this yarn can be machine washed in water no hotter than 104 degrees and dried by machine. The yarn is a medium-weight yarn, and to achieve a gauge of 14 stitches and 16 rows in a four by four square fabric, and the maker suggests using a US I/9 crochet hook.

The gauge is one of the most significant pieces of knowledge you can find on a wool mark. The gauge applies to the number of stitches in a row and how many rows it takes to create a swatch of four by four inches. The gauge notes virtually every trend that you come across. You should use the recommended hook size and crochet a sample until you start a pattern and you should use the recommended hook size and crochet a square of four by four inches and measure the number of stitches in a row and how many rows you end up with for the pattern to the specified gauge. You'll either have to tighten the resistance or use a smaller hook if the gauge is bigger.

When you are starting out, don't miss having a gauge swatch. I still make gauge swatches as an accomplished crocheter. Trust me, and they're going to save you time and headaches, so make it a habit to use them.

Skeins, Balls, and Hanks

Most of the yarn in discount shops you can find comes in skeins. Skeins are quick to use, and you don't usually need to roll up the balls with the yarn. To prevent the yarn from tangling, ensure that you take the yarn from the middle. You should use it exactly as it is without rerolling it if the yarn is in a ball. Place the yarn ball in a little bowl when you're dealing with it to prevent it from rolling backward.

Most animal fiber yarns come in hanks and handwoven yarns. You can't work with a hank, and you can't even try! A convoluted mess is what you'll end up with. It is important to roll Hanks into balls or cakes. Manual and electric yarn winders can be found that can save you time and headaches. Swifts with winders are often used to carry the yarn as it is woven. To keep the hank of yarn, stretch the swift, loop the winder, and then wind the yarn gently into a ball or cake.

Yarn Tips

Now that the basic knowledge you need to know about yarn has been covered, I want to share some tips that I've learned over the years with you. Read the label of the yarn to grasp the data found therein. For knowing the weight, fiber quality, prescribed hook, care directions, and gauge, a yarn label is your best source.

Buy more of the same dye lot than you need if the yarn you select has a dye lot number. Today, not all yarns have dye loads, but if they do, it's a smart idea to have more yarn than you use so that as you add new yarn, you don't run out, and the color changes.

As long as they are of the same weight and fiber material, you can replace yarn labels. For example, if Vanna's Option is called for by the pattern, but your fiber material. For instance, if the pattern needs Vanna's Preference, but you only have Red Heart, just make sure the weights of the yarns are the same. This will guarantee that, as you intend it to, the idea works out.

Secure the pricey wool for today. If you see the yarn that you like, go ahead and buy it and save it for later. Stick to mid-range yarns, which are straightforward to deal with and convenient to care for, for now.

Remember not to smoke around or when you're crocheting your yarn stash. Yarn takes up smells really quickly because you don't want your project to smell like tobacco smoke while you're making a present. You should put it in

a pillowcase, tie the pillowcase and wash it and dry it on the gentle machine if you get wool as a gift and it has an odor. It typically prevents cotton odors and leaves intact the yarn balls and skeins.

CHAPTER 3 –READING PATTERNS

Now that we've discussed the simple crochet vocabulary, it's time to move forward to reading and comprehension patterns. This is an invaluable ability that must be learned by all beginners. You open up a whole new world of imaginative opportunities as you can read and comprehend patterns. We'll go through a simple pattern step by step in this chapter to help you learn how to read and work it.

Look through the whole pattern before you start working on a pattern; check the kind of yarn you need, the sum of the yarn, and the size of the needle.

Look for the pattern for any specific stitches or directions required. To make sure that you recognize the stitches and how they all fit together, read over the actual pattern. This would save you from getting any surprises or stuck because you don't know how to make a stitch work. You are unfamiliar with looking at them at one of the resource links in the back of this book to find a video or written directions to help you around the stitch if you find any stitches.



To learn how to read a pattern, we will use Red Heart's Buttoned Up Cuffs, designed by Lorene Eppolite. Right now, cuffs and wrist warmers are really common and a perfect beginner's project.

The first search on the pattern for the ability level; this pattern is graded for beginners, so it's ideal, to begin with. Next, check your wool and the quantities you will like. You will need one ball of Red Heart Reflective in Pink for this design. You can use this thread, or you can swap it with any worsted yarn of medium weight. You will also require a US crochet hook size J/10 (6mm), a wool needle, and four 1/2 inch buttons to sew on the buttons along with a needle and thread. You're going to use the crochet

needle to work on the yarn's ends (in a later chapter, we'll cover how to do this).

The gauge is the next significant piece of knowledge. Your swatch can be 1 1/4 inches high and five inches wide if you take the yarn asked for and the hook the pattern describes and crochet single crochet stitches to make three rows of 15 stitches. You might need to go up or down a hook size if it doesn't or change the stress to get the right gauge. Gauge is important because the pattern manufacturer used it to get the scale of the pattern.

This pattern's basic instructions state that the directions are written with medium and wide in parentheses for short. But you can follow the instructions within the parentheses and skip the other directions if you need to make a larger scale. For each scale, the pattern also gives you the finished measurements.

You can also see some abbreviations at the end of the pattern that you need to remember to run the pattern.

We are getting to the meat of the pattern now; how to work it. You see that you're going to make two cuffs, and you start by chaining 24 (for our example, we're going to use the small size).

Row 1 begins with half a double crochet from the hook on the third chain. As for the first-half double crochet, the first three chain stitches count. In most patterns, this is a typical orientation. Unless stated differently, the first two or three chain stitches count as the first stitch. Run half a double crochet now before the end of each chain stitch. You'll get 23 half double crochet stitches if you count the stitches, counting the first three chain stitches as the first half double crochet. Turn your job around, and you're ready for Row 2 to commence.

Row 2 continues with the second chain. Note that this does NOT qualify from now on as the first stitch. The first stitch is a half double crochet. (This is the double crochet of the first half of the previous row.) Chain one, skip the

next thread, and work the remaining stitches with half a double crochet. You should have 22 half double crochet stitches and one chain stitch now. Change the career around.

Chain Two begins with Row 3. Work half a double crochet in each stitch and one room across into the row. In this row, you'll have 23 stitches. Change the career around.

The repeats of rows 2 and 3 are rows 4 and 5. Leave around a six-inch tail after working rows two and three again and cut the thread.

When you have crocheted both cuffs, it's time to finish them. The openings in the chain act as buttonholes. Using the opposite ends of the cuffs to line them up and sew two buttons on each cuff. Thread the tails you have left with a tapestry needle and loop them back and forth in and out of the stitches to protect them. You've got two beautiful wrist cuffs to wear or give as a present now.

Tips for Reading Patterns

I want reading patterns to be easy for you, so here are some tips for reading and learning patterns. Before you start to work it, read over the whole pattern. Before you started, review any special orders or stitches that you need to remember. Before you start, be sure you've got enough yarn. You don't want to do almost anything just to discover out you haven't bought enough yarn. Buying so much wool is better than not buying enough. To make sure you have the right hook and all the accessories you will require, gather all the materials you will need.

CHAPTER 4 – BASIC CROCHET STITCHES

It's time to start practicing simple crochet stitches now that we have covered the tools you'll need, learned more about the thread, and how to read a pattern. A variation of the basic stitches to comprise single crochet, double

crochet, half double crochet, and treble (triple) crochet stitches are all stitch patterns. It is how you mix these stitches that defines the way the pattern of the stitch works.



Chain Stitch and Foundation Chains

A base of chain stitches begins with just about every new piece of crochet. Create a slip knot first and put it on your hook.

Take the yarn and position it, and pull it through the slip knot over the hook. This is the first stitch on a chain. Place the thread over the hook and draw it along this stitch of the rope. You've got two chain stitches now. You don't count the slip knot, you know, because when you count stitches, you don't count the loop on the hook. How many chain stitches you need to make will

tell you your pattern.

Single Crochet

You can now draw on it with other stitches until you've crocheted your base chain. You don't work the loop on the hook, and you don't work the very first stitch in the line. Insert the hook from the hook onto the second chain. Over the hook, put the yarn and draw it through the stitch. You've got two loops on your hook now. Draw the yarn over and around all loops. It is a thread with a single crochet.



Insert the hook and yarn over into the next stitch, pull the yarn through the stitch, yarn over and pull the hook into both loops. This is the crochet of the second single. Continue to do this step during the row or as many times as needed by design.

Double Crochet



One of the most common stitches you can learn is the Double Crochet Stitch. For puff stitching, clusters, shells, and several other stitches, it is the cornerstone. Place the yarn over the hook until you insert the hook into the next stitch, insert the hook into the next stitch, pull the yarn over, and pull the yarn into the stitch. You've got three loops on your hook now. Pull it through the first two loops, pull it through the first two loops, and pull it through the last two loops. It is a stitch of double crochet stitches. It is taller than a single crochet, you may note, and it creates a looser cloth than single crochet.

Half Double Crochet

For hats and Afghans, the half double crochet stitch is used a lot. Not even as tall as double crochet, it is. Yarn over the thread and insert the next stitch into the loop. Pull the thread over the stitch and pull it through. Now you're going to get three loops on your hook. Pull the thread over and pull the yarn on the hook into all three loops. This is a double crochet stitch for half.

The first picture shows half a double crochet operating on a chain of foundations. Miss the first two chains and slide the hook from the hook onto the third line. The second picture depicts, at the beginning of a new row, working a half double crochet.

Treble Crochet

In designs, you can see the words Treble and triple crochet used interchangeably. The same stitch is implied by both words. Treble crochet is similar to double crochet, except before you put the hook into the next stitch, it is even taller, and your yarn twice over.

Double the yarn over and put the hook into the next stitch. Pull the thread over and pull the stitch in. You're going to get four loops on the hook now. Yarn over and pull through the first two loops, yarn over and pull through two loops, then yarn over again and pull the hook through all the remaining loops. It is a crochet stitch for the Treble.

Back Loop Crochet Stitches

A pretty ridge around the base of the stitch is formed by back loop stitching. You can see the top two loops shape a V if you look at a crochet stitch. To crochet a back loop stitch, merely push the hook **ONLY** through the back loop rather than into both loops of the V. Operate the stitch as usual.

Front Loop Crochet Stitches

Front loop stitches are used on the wrong side of the cloth to begin the ridge. On the right side of the cloth, the ridge will light up. Place the hook into the front loop of the next V-stitch ONLY. Loop stitching on the front and back can be a little looser than usual stitches, but they're just as durable.

Shell Stitch



For lots of designs, shell stitches produce a really good finish. How many double crochet stitches to use for a shell will tell you your pattern. It's typically at least three, normally up to five or six. Simply work the right number of stitches into one stitch for shell stitches to work. It's going to form a pretty shell. Work a double crochet into the next stitch, for example. Now you work another double crochet into the same stitch instead of going to the next stitch. For as many times as the pattern calls for, begin working double

crochet stitches into the same stitch.

Puff Stitch

The puff stitch brings a lot of color to the crochet and has a good effect. It's close to the stitch of the shell, but you wait until you get all the stitches employed by pulling the last thread over. Put the hook over the yarn and insert it into the next stitch. You now have three loops on the hook, Yarn over and Pull Through. Yarn over the first two loops and pull them through. Yarn over and put the hook, yarn over and pull through the stitch, yarn over and pull through the first two loops, through the SAME stitch. You've got three loops on the hook now. Insert the hook, yarn over and pull in, yarn over, and pull the first two loops on the hook in. You've got four loops on the hook now. Yarn over and pull at once through all four loops. On the hook, you're still going to get one more loop than you have puff stitches.

Popcorn Stitch



The popcorn stitch is a trendy stitch that provides the crochet fabric with puffs of texture. It works the same as puff stitch, only that you do not even draw the yarn through the loops on the hook till the very end. Yarn over and embed the hook into the next stitch, yarn over and embed the hook into the SAME stitch, yarn over and insert the hook into the same stitch, yarn over and insert the hook into the SAME stitch. You can have seven cycles on the hook now. Chain one to secure the stitch, yarn over, and draw through all seven chains.

V Stitch

A very flexible stitch used in a number of projects is the V stitch. Run a double crochet stitch in the next stitch to crochet a V stitch, chain one, and then put another double crochet through the SAME stitch. Miss and repeat

the next stitch.

CHAPTER 5 – BASIC CROCHET TECHNIQUES

We'll learn the simple crochet techniques you need to learn as a beginner in this portion. At the beginning of the row and in the middle of a row, the methods we'll discuss are crocheting in the ring, changing colors, how to join yarn when you run out, or the yarn splits, and more crochet techniques you can use to make your designs work easily and make your life a lot simpler.

Crocheting in the Round

This method can be used for a number of ventures, such as hats. Insert the hook through the first chain, yarn over, and pull the yarn through the chain and the loop on the hook after you have made your base chain. This is referred to as entering. I would strongly recommend that you apply to the joining chain a stitch marker. You've got a circle of stitches now. It will become very difficult to say where the round starts until you start going through your project.



You'll find your seam is going in a diagonal direction when you crochet in the round. This is natural, and the trends work exactly the way they work. This is especially true if, over the pattern, you have decreased or increased. Although it is still necessary to count your stitches, it is necessary to count your stitches in the round while you crochet so that your project works out correctly.

Magic Ring

You end up with a tiny hole in the middle of the circle when you use a base chain and connect it with a slip stitch. Although this is completely appropriate for most tasks, there are certain occasions when you want to close

the circle. This is where it's useful to know how to do a magic ring. I'll now confess that it takes some practice to master this technique. Until it actually clicked, I had to replay a video several times, and I can now do it without having to look it up.

Place the yarn on the palm of your hand and drape the yarn over your index finger. Wrap the yarn around your middle finger and index finger and catch the end of your little finger attached to the skein. Insert the hook on your index finger beneath the string and grab the thread. Draw it through the loop and once again take the thread and draw it on the hook through the loop. Continue to work around the circle with the starting stitches of the first round. Grab the loose tail of yarn after you've done the stitches and carefully draw it up before the stitches touch. The stitches should then be combined, and you'll have a solid circle of stitches to deal with.

Changing Colors

The use of various shades is one of crochet's fun things. Changing colors can sound like a challenging challenge for a novice, but it's really simple. Simply work the last stitch before you have two loops on your hook, whether you have hit the end of a row and choose to swap colors. Pick up the new color and draw along the two loops with it. Switch the job around and do the chain stitches for the next row's first stitch and softly pull the old color and the snug new color. Leave the old hue with a six-inch tail so that you can weave it in.



You can use the very same strategy if you need to change the colors in the middle row. Work the last stitch of the old color, take the new color, and drag it along until you have two loops on your hook. Work a couple of the following stitches and then snugly pull the shades. Don't pull them too close, or you're going to make the fabric pucker. Leave a tail of six inches to weave in later on.

To take care of those annoying tails, you can use a few tricks so that in the end, you don't have a lot of them to weave in. Beneath the fresh threads, you can grab the tails of the thread. To do this, make sure your hook goes under both the new color and the tails of the old color and catch them before you hit the end of the tails in your stitches. Another strategy is to take the tails and thread them in and out of the previous row's stitches and then crochet them to make sure you put the hook under the tails. This is a really good way to lock

your tails and when you're done, stop trying to weave in a lot of them.

Weaving in Tails

This is a work that few want to do, but to protect the tails of your wool, you have to do it. Using a tapestry or wool needle and stitching the tails into the stitches is the best way I have learned. Insert the needle and change the course nearly three times under the loops of the stitches. This really secures the wool ends, and they won't work out of the cloth their way.

How to Join Yarn

Perhaps you run out of thread while you're crocheting. So now, what are you doing? We will discuss two separate approaches for a smooth join in this segment so that you can carry on crocheting without having to frog back to the beginning of a row your job.

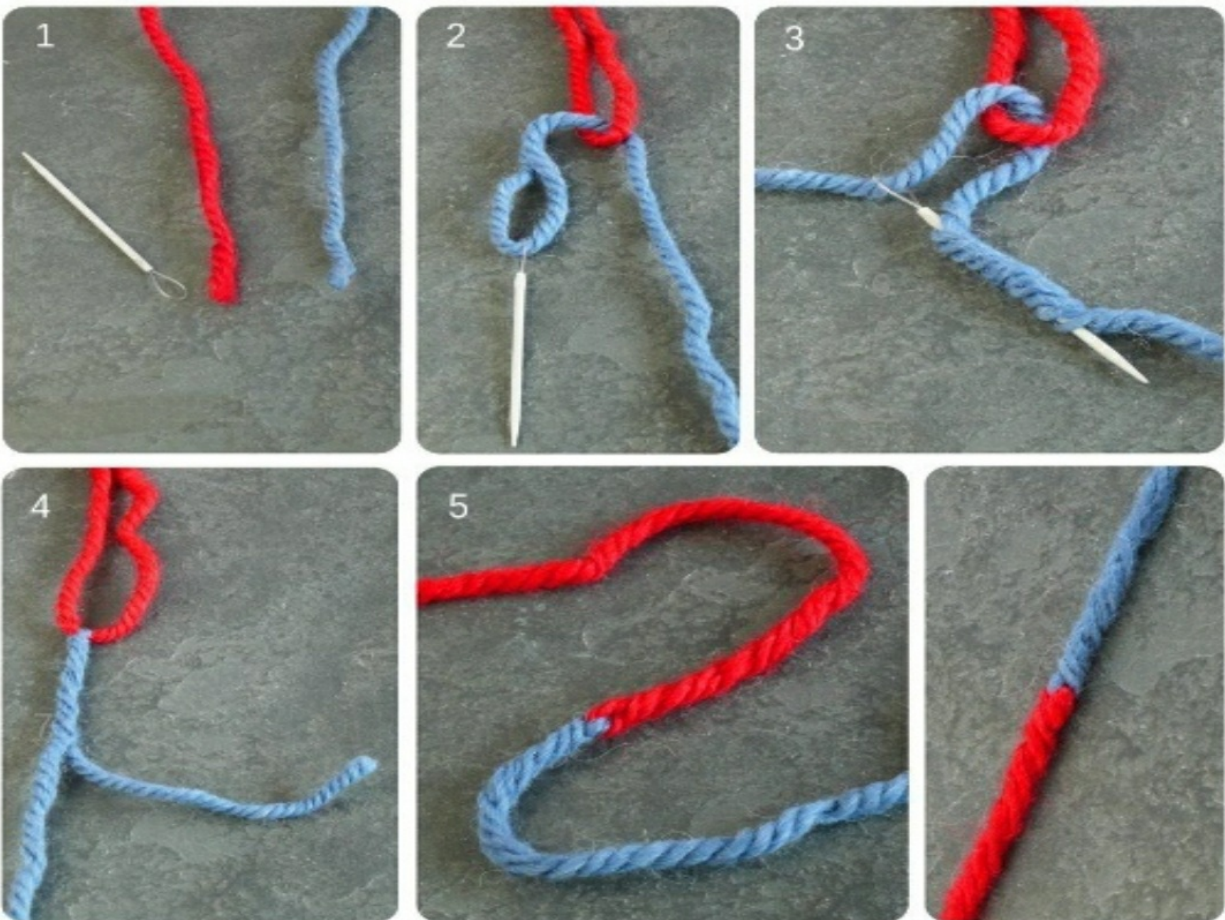
Spit Splicing

For animal fiber yarns, such as wool, alpaca, cashmere, and other types of animal fibers, the first approach can only be used. On plant and synthetic yarns, do not attempt to use this method because they do not naturally feel up. And yes, spit can be used by you. Your saliva contains enzymes that help break down the fabric fibers, and the yarn spontaneously fills and links itself when combined with the heat generated by the friction of rubbing the palms together.

Fry the ends of the old and new yarn first. Now lick your hands' palms and place the yarns with the ends overlapping in the side. Rub the palms firmly together until the yarns form one strand. To get the splice to stay, you can have to rub a couple of times. You have one continuous yarn strand now, and you should keep crocheting.

Russian Join

For any form of yarn fiber, the Russian joining method may be used. You may use the Russian joining method for any form of yarn fiber. To execute this yarn joining process, you will require a tapestry needle. For one of the threads of yarn, loop the needle and sew the yarn back into itself for a few inches. Move to the other piece of yarn and fasten the needle with string. Through the loop created by stitching the first yarn back on itself, bring the needle up and stitch the second piece of yarn back on itself. In opposite hands, grasp the ends of both yarns and softly tug until the yarn in the middle joins. When the yarn is paired, you can have to cut the frayed ends.



All of these approaches produce very solid joints in your crocheted cloth that are nearly undetectable. You will find a touch of extra weight when you are

using a bulky yarn where the yarn is joined, but not enough to distract from your finished job.

CHAPTER 6 – BEGINNER PATTERNS

We've learned about yarn now that we've covered the tools you need, learned simple stitches and procedures, now it's time to put a hook to yarn and create some beginner creations. Many of these patterns can be viewed online for free, and I have given the original creators credit where possible. For this book, the patterns I've selected are intended to help you develop faith and abilities. Take the time, first read through the patterns, then have fun. Don't sweat it if you have to pull out your stitches and start again. No matter how long we've been crocheting or how advanced we might be in the art, we all do that. You will find all the photos in the link at the back of this book in the Pattern Link section.

Classic Chunky Cowl

Right now, cows are all the rage, and this basic Red Heart pattern crafted by Laura Bain works quickly and easily. You could crochet this pattern in many different colors to achieve a different look using a variegated yarn. Be sure to check out the video connection in this book's Pattern Links section.

You'll need two Foggy Red Heart Grande hoops, a crochet hook size Q (16mm), and a tapestry needle for weaving at the ends. When done, this cowl will be approximately 8 inches by 34 inches. The gauge for this project is six stitches, and 4 inches is equivalent to 3 rows.

Chain 12

Row 1 (right side): Double crochet in the third hook chain (starting chain may not qualify as the first double crochet) and switch ten double crochets for each chain around.

Row 2: Chain 2 (doesn't really function here and elsewhere as double crochet), double crochet, turn in every double crochet.

Reiterate Row 2 until 33 inches or the appropriate length of the component is determined.

Forming Row: Chain 1, single crochet in each Double Crochet-10 sc with the opposite side of the first and last row kept together going across all layers.

Single Square Coasters

How adorable are they? These coasters from Granny Square can be made in a range of colors and can give a new bride a very cute stocking stuffer or present. To use up your stash and make some nice home decor, this is a perfect idea.

You would need one ball every one of Red Heart Ginger snap-in Cherry (Color A), Turquoise (Color B), and Lilac to crochet the coasters (Color C). To thread in the ends, you'll also need a size G/6 (4.25 mm) crochet hook and a tapestry needle. When done, squares will be four inches square.

Color Sequence

Coaster One: All foursets are performed in Color B

Coaster Two:Sets 1 and 2 are performed in Color A, sets 3 and 4 are performed in Color B

Coaster Three:sets 1 and 2 are performed in Color A, sets 3 and 4 are performed in Color C

When making the Granny Squares, you'll be working in the round. There will be two sets of three double crochet clusters in each corner, and each cluster is worked in a chain of three spaces in the previous round. Create a slip knot as the pattern calls for you to enter a new color and put it on your hook. Insert the thread into the correct stitch, pull the yarn over, and pull the yarn through

the stitch and the hook loops. As a stitch in the pattern, this does not register.

Begin each square with chain 4; slip stitch in the first chain to form a ring.

Round 1 (right side): Chain 3 (considers as dc here and through), two double crochet in ring, chain 3, 3 double crochet in the ring; reprise from twice, chain 3; enlist with a slip stitch in the crest of starting chain-3 – 12 double crochet; 4 chain-3 spaces. Clamp.

Round 2: Slip up a stitch in the next two double crochet and chain-3 space, chain 3, (2 double crochet, chain 3, 3 double crochet) in that very chain-3 space, (3 double crochet, chain 3, 3 double crochet) in the coming chain-3 space; reprise from twice, combine with a slip stitch in top of starting chain-3.

Round 3: Chain 3, (2 double crochets, chain 3, 3 double crochets) in the same chain-3 space, 3 double crochets between the next two 3-double crochet groups*, (3 double crochets, chain 3, 3 double crochets) in the next corners chain-3 space, 3 double crochets between the next two 3-double crochet groups*, (3 double crochets, chain 3, 3 double crochets) in the next corner chain-3 space, repeat from the round, ending the last repetition at *; join with groups*, (3 double crochets, chain 3, 3 double crochets) in the next corner chain-3 space; repeat from the round, ending the last repetition at *;

Round 4: Slip stitch in the next two double crochet stitches and chain-3 round, chain 3, (2 double crochet stitches, chain 3, 3 double crochet stitches) in the same chain-3 line, [3 double crochet stitches in the next two 3 double crochet stitches] twice*, (3 double crochet stitches, chain 3, 3 double crochet stitches) in the next chain-3 round; repeat from the round, finishing with the last repeat at *; insert a slip stitch at the top of chain-3.

Fruit Platter Scarf

With these beautiful scarf styles, you can practice your color-change abilities. Remember that the last stitch in the line is worked until the hook has two loops, and then the new color between both the two loops is drawn, and the thread is snuggled up. Switch your work and start the pattern in the new color.

In Aqua (Colour A), Kelly Green (Color B), Fern (Color C), Radiant Yellow (Color D), Raspberry (Color E), and Cheery Cherry, Vanna's Preference of Lion Brand (Color F). Cheery Cherry is a Baby Yarn from Vanna's Choice. To tie in your ends, you also will require a size J/10 (6 mm) crochet hook and an embroidery needle.

With Color A, chain 22

Row 1: Part double crochet in the third hook chain (starting from row 1 of chain 2: Part double crochet in the third hook chain (starting from chain two does not count as a stitch), half double crochet in each chain across-you would have 20 stitches at the end of row 1.

Row 2: Chain 2 (does not count as a stitch), shift, double crochet halfway through each stitch.

Repeat Row 2 until the piece is about 10 inches tall. (25.5 cm), with the last stitch changed to B.

Keep repeating Row 2, operating 10 cm. (25.5 cm) with B, C, D, E, and then F, each with a color shift on the last stitch of every other color frame.

Barefoot Sandals

They're so good! Imagine going to the beach or the pool and sporting a handmade barefoot sandal of your own. To match your mood and your dress, you can crochet these up in a range of colors. Then, you make the ankle brace and then, by slipping stitching into the middle of the first link, create the sandal's triangular form. This reduces the rows automatically until you form a point on the toes. Slide the button onto the thread before you crochet the

starting chain and slide it along while you crochet. When you crochet the buttonhole, this positions it at the correct position. For this initiative, the gauge is not relevant.

To weave at the ends, you'll need one ball of Lion Brand Microspun Yarn in Lavender and a G/6 (4 mm) crochet hook, and a tapestry needle.

Note: Skip Row 8 by doing the slip stitch to the middle of the second chain gap on Row 7 if the part becomes too long for the foot, and then function on Row 9. To create a needle threader thread, link chain 6 with a slide stitch.

Row 1: Chain 36, slip away and tell at the end of the row, single crochet from hook and through to loop for ankle boot in the third chain, crochet from hook and through to loop for ankle strap in the second chain, finish off - 35 stitches.

Row 2: Add a single crochet yarn from the last stitch in the previous row to the 11th stitch and a single crochet yarn from the next 14 stitches —15 stitches.

Row 3: Chain 6 (qualify as dc and gap chain three), [avoid one thread, following stitch dc, space chain 3] along - 8 dc and place chain seven.

Row 4: slip stitching in the middle of the first three-space row, chain 6 (counts as dc and three-space chain), dc in the middle of next three-space chain, (chain 3, dc during the next three-space chain), cross, leave the remaining stitches untouched - 7 dc and six-space chain

Row 5: Replicate row 4 - 6 dc and five chain-place.

Row 6: Replicate row 4 - 5 dc and four chain-place.

Row 7: Replicate row 4 - 4 dc and three chain-place.

Row 8: Slip stitch to the center of the first chain three-place, chain 3 (considers as dc), dc in center of the coming chain three-place twice - 3 dc.

Row 9: Slip stitch in the first stitch, single crochet in center dc.

Row 10: Repeat, single crochet in single crochet.

Row 11: Repeat, single crochet in single crochet, chain 8, slip stitch into the same single crochet to form toe loop, end off.

Afternoon Wrap

This very beautiful wrap was designed by Kim Rutledge and is from Caron Yarnspirations. In a four-row pattern repeat, the wrap is crocheted. To obtain the pretty wrap pattern, this row pattern is repeated eight times. When finished, the wrap will be roughly 20 inches wide and 75 inches long.

You will need the next amounts of yarn:

Caron Simply Soft: 2 Plum Great Balls for Color B, and 1 of White Ball for Color D

Caron Clearly Soft Heather: 3 Gray Heather balls for Color A, and 1 Charcoal Heather ball for Color C

To weave in the ends, you'll also need a size I/8 (5 mm) knitting hook and a tapestry thread.

Four pattern repeats are the scale for the wrap, and eight columns amount to four inches.

Stitch Pattern

Row 1 (RS): (Single crochet, chain 3, dc) in the 2nd chain from the hook, omit next two chains (single crochet, chain 3, and double crochet) in the next chain; repeat the process.

Row 2: Chain 3 (considered as the 1st double crochet), double crochet in the 1st stitch, (also, one crochet, chain 3, and double crochet) in every chain-3 the gulf across to the last chain-3 area, single crochet in the previous chain-3 space, chain 2, double crochet in the previous single crochet.

Row 3: Chain 1, individual crochet in first loop, chain 3, dual crochet in the next chain-2 room, next chain-3 room (single crochet, chain 3, double

crochet); rehearse from all over, single crochet in last double crochet (spinning chain), turn through across.

Rows 1-3: Design Loop Work Rows 1-3-75 single crochet and 74 chain-2 gaps.

Continue to work to change colors in the sequence stitch as follows:

Four more rows with A, one more row with D, two more lines with A, two more rows with C, four more rows with B, one more row with D, four further rows with B, two additional rows with C, two more columns with A, one more row with D, seven more rows with A;

Clamp off. Use a needle of thread to weave at both ends.

Easy Peasy Pompom Hat

I just had this cute pattern to use. For any little girl or child, this is the ideal hat. The pattern depicts a young boy wearing a blue-themed hat, but for a young girl, you can switch colors quickly. The pattern is written in the smallest scale (3/6 (6/12-18/24) months to match the head of the baby) and has larger sizes in parenthesis. The hat is worked as a single piece, and then you fold over the piece to form the hat and sew the side and top seams up. On each corner, attach the pompom, and you have a cute look for any kid in your life.

Twelve single crochet hooks and 13 rows equal to four inches are the scales for the cap.

You'll need one ball of Sailor Boy Variegated Caron Clearly Baby Ombre yarn and a crochet hook measure J/10 (6 mm). To stitch up the seams and weave in the ends, you may also use a tapestry thread.

1st row: 1 single crochet hook on the second chain. Each chain has one single crochet at the end of the chain. Uh, transform. Single crochet of 46 (55-60).

2nd row: String 1. At the end of the lines, one single crochet in every single crochet

Row 3: Chain 1. In the first single crochet (1 single crochet, two double crochets),

Miss the single crochet for the next two. During the next single crochet, (1 single crochet. 2 double crochet) For the last three single crochets, rep. Miss the single crochet for the next two. For the last single crochet, one single crochet.

4th row:Chain 1. In the first single crochet (1 single crochet, 2 double crochets),

Miss the double crochet for the next two. In the next double crochet, (1 single crochet. 2 double crochets). Rep from the last crochet single. For the last single crochet, one single crochet.

Rep last row for a pat before 6 (7-8) inches from the beg steps are worked. Clamp off.

Fold the piece in half: sew the top seam and the foot.

Wrap almost 50 times through three fingers of thread. Take it from the tips of your fingers and tie it in the middle tightly. On any side, split in the loops.

Trim to a smooth spherical shape. Sew with one pompom on each top corner of the hat.

Button Holes

Without using a different front band, horizontal buttonholes may be incorporated into the front of a crocheted sweater. This fits well on half double crochet or single crochet. Work the front that will not have buttonholes first, and mark the button positioning edge—horizontal function buttonholes on the opposite side to match, using the completed front as a reference. Work a few stitches from the edge as you hit a positioning mark—usually around V2' (1.3 cm)-chain 2, 3, or 4 sts (depending on the size of the button), miss the same amount of stitches you've chained together, and proceed through the row.



To complete the buttonhole, work the number of stitches missed into chain space on the return row. Continue, and repeat to the next marker. Pick up stitches (page 39) around the garment's edge for vertical buttonholes from the right side, and work two single-crochet rows. For buttonhole positioning, mark the tip. On the third and fourth lines, operate the buttonholes, following instructions to the left. Act in the fifth row and, if necessary, add a decorative lip.

Picking Up Stitches for Borders

To add a border, you also need to pick up stitches from a crocheted piece's sides. The row ends, picking up stitches along the sides of a project, is the toughest part of bringing a lovely finished look to your crochet pieces. Practicing this move before you get it right is worth the effort. The general rule of thumb is for single crochet to pick up one stitch in every other row. If you have worked 20 rows of single crochet, for example, you can pick up ten stitches along the ends of the row. For double crocheting, pick up one stitch for each row.

For starters, you'll pick up 20 stitches if you've worked 20 rows of double crochet. For certain persons, but not always, these recommendations work. Your task must lay flat, and you're going to have to experiment sometimes to judge how to continue. You are taking up too many stitches if the sides are rippling, like a ruffle; if they draw in, you are picking up too few stitches.

Dividing the length to be worked into four sections is the only way to get an even edge. Repeat the number of stitches for each of the following three sections until the first section is finished and lies flat. Act on the top and bottom edges of any stitch. In each corner, you still work three stitches to make the project lie flat.

Setting in Drop-Shoulder Sleeves

Place the front and back on the work surface on the wrong side after the shoulder seams have been sewn to find the middle and fold the sleeve in half. Place the sleeve's wrong side around the armhole and tie the middle to the seam of the elbow. Pin the remainder of the top of the sleeve in place, each hand touching the underarm indent.

The indents of the body correspond with the end of the row at the top of the sleeve. Thread the wool needle into the first stitch on the cuff, then into the following stitch on the garment's body, keep the sides together, and

proceed this way from side to side until the sleeve is sewn in order. For the opposite sleeve, repeat. Then, from the sleeve's cuffs to the bottom of the body, sew the underarm seams. Switch the garment out on the right side.

Fold the fabric in two, the wrong side up, when setting a sleeve into a garment that does not have side seams. Follow the same process, starting and finishing at the middle of the underarm of the dress. Then sew the underarm seam into the sleeve. Switch the garment out on the right side.

Freeform Crochet

It is assumed that traditional Irish crochet is the original type of freeform crochet. Along with lovely mesh stitching and Clones knots, the exquisite leaves and flowers employed in tiny stitches and fine cotton were works of art worn by royalty and the very rich. James Walters and Sylvia Cosh, two of the early movers and shakers of the freeform movement, invented a name for the little parts used in creating a freeform garment; they called them "scrumbles." Freeform crochet is a mixture of stitches and colors, employed in a multidirectional manner by some definitions.

For years, with a range of highly textured stitches in shades of cream, beige, and tan, I've done all my freeform crochet in neutral colors. I liked the look. It wasn't until much later that I started more color studies. I've tried using one color with various yarns lately. Using one thread, one dye, several different stitches, I've seen wonderful examples of freeform. Do not be afraid to experiment, whatever your choice. Freeform crochet isn't a project for the weekend, not intended for immediate gratification. Give yourself the time to experiment, to play, and to become imaginative. It's worth the results.

Mesh Method

To improve freeform crochet, I use several techniques. With less effort, the one I think that most resembles Irish Crochet is embellishing a mesh backdrop. To mimic Clones Knots, the jacket on page 112 is worked in a

mesh stitch with some puff stitches. Without more embellishment, you should wear a sweater. I embellished it with some traditional flowers and leaves from old Irish crochet designs to turn it into free-form crochet.

Lining Method

The lining technique is similar to the prototype form. In this case, a piece of padding or other cloth cut to the finished form of the dress or decoration is your template. Scumbles are either sewn on the cloth or glued to it. The underlying cloth needs support and, if you don't want to, you don't have to cover it entirely. Scumbles can, in turn, be used as appliques.

I used gloves and mittens, sock cuffs, cloth slippers, pillows, and even bought clothing, such as sweatshirts. The lining for a warm freeform jacket will become a sweatshirt. Next, the collar, cuffs, and bottom have all the ribbing trimmed off. Then cut the middle front sweatshirt down, making a cardigan. Working from the top down, pin the scumbles in place, then hand-stitch them to the sweatshirt and to each other while you work.

A moderately heavy, lined jacket is the outcome. Using the sweatshirt only as a reference if you choose a lighter-weight sweater. Sew them to one another, but not to the sweatshirt, after pinning the scumbles in place. It is then possible to cut the sweatshirt, and you will have a lovely shaped garment. If you like, add corners, buttonholes, and corners, or leave the asymmetrical edges as is.

Hairpin Lace

By first creating strips (also called braids) and then linking them together, hairpin lacework is produced. Each strip, connected by a middle row of single crochet stitches, is a sequence of side loops that form around the prongs. To make hairpin lace strips of varying widths, the prongs can be placed at different widths apart. Most patterns do not vary in the way the basic strip is made, but it is the method used to connect the strips that really separates the pattern of hairpin lace. Consider the simple strip as the hairpin

lace's universal building block, and the linking approaches are where imagination comes into action! Label the beginning end of the strip while operating a hairpin lace strip. Build a strip of 4" (10 cm) or more, take the strip off of the loom, and lay the strip down without stretching. Mark off 4" (10 cm) and count the total number of loops between the marks (on both sides).

Making a Hairpin Lace Strip

- Set the loom to the distance that the pattern asks for by setting the prongs. Orient the loom so that the most conveniently removable bar (for sliding off the job) is at the rim. Cut two lengths of waste yarn marginally longer than the strip's target finish length and tie them loosely to the bars, allowing each prong to trail along. You'll work the loops around the prongs and waste yarn; when they slip off the loom, the waste yarn will hold the loops in order and untangled.
- Stable working yarn to the left-hand prong of the loom with a slip knot. Ease the knot to the middle of the loom; tape the tail to the bottom bar's back, if desired, to keep it in place. Wrap the yarn around the right prong from front to back and bring the yarn back to the left edge.
- Tense your fingertips with the working yarn like you will look for daily crocheting. Insert the hook into the loop on the left-hand prong from bottom to top, wrap the thread around the hook, and draw it through the loop. Completing single crochet, loop the yarn around the hook again and draw it out.
- By turning the screw, plan to turn the loom so that the side of the handle faces up and thread the hook's handle end into the loom above the work. Hold the thread on the hook and keep the yarn in your fingers close. Grab the hook from the opposite side of the

loom, keeping the hook loop still in place.

- Turn 180 degrees clockwise on the loom, causing the yarn as you turn to loop around the left prong. The back will face you now, and the prongs will have switched places, and the hook will be in front again.
- Insert the thread on the left prong under the loop of the loop's front strand, pull through a loop (there are now two loops on the hook), pick up a loop, and crochet a single loop.
- Repeat measures 5 and 6, with loops covering the loom. Switch the loom in the same direction at all times and run loops on the same side of the loom. Keep the single stitches centered on the crochet.

CHAPTER7 - ADVANCE PROJECTS

Bunny Basket

An ability that is also used for the hat, mittens, and the crocheted button on the handbag, this festive basket introduces VOL] to crocheting in the round. Let the colors take center stage with basic single crochet stitches. Only one successful combination is the blue and yellow seen here; play with your own color duos to fit the season or our decor. The outcome will be as sweet as a rabbit made of chocolate.

Basket Flip two threads (one of each color) together to hook with a slip knot. 5. Ch 5. You stuck SI into the first chain you made. It forms a ring.

Round 1: Ch 1. Work tensc into the center of the ring—SI st into initial Ch to complete the round.

Round 2: Ch I. Place marker. Do not work a stitch at the base of ch. Work twosc into each sc from the previous round. Total 20 sc. SI st into ch to complete round. Remove marker. Finished size: Approximately 6 inches in diameter, 5 inches high (to top of handle) Materials: Royale Classic Crochet

Thread, size 3 (100 percent mercerized cotton, 150 yards per ball) 1 ball of each: Color A: Maize (0423) Color B: Periwinkle (2221) A short piece (2 inches) of contrasting color thread or one coilless safety pin to use as a marker Hook: Size H Tapestry needle Gauge: Does not matter for this project Tip: Remove the marker at the end of every round and replace it at the beginning of the next round.

Round 3: Ch 1. Work 1 sc into first sc from previous round, then twosc into next sc from the previous round. Repeat from (1 sc, twosc, 1 sc, 2 Sc, etc.) until the end of the round. Total 30 sc. SI st into the first ch to complete round. Stitches and abbreviations: Chain stitch (ch) Single crochet (sc) Slip stitch (Slst) Yarn over (yo) Notes: To work two different colors together, you can make one two-colored ball before you begin, or simply work from two balls as you go along.

No matter which forms you select, when you tie the strands with the initial slip knot to the hook, line up the ends. Make sure that when you go through the pattern, you hook all strands. When performing in rounds, you are still facing the right hand. At the end of the round, do not turn the job in. Starting from round 2, lay a small piece of contrasting color snugly against the initial chain stitch of the round to mark each round's beginning. Alternatively, you should mark this position with a coilless safety pin. Delete the marker at the end of each round and position the marker in the next round. This helps you to recognize the start of the rounds quickly, so you don't stop short or go too far.

Round 4: Ch 1. Work onesc into each sc from the previous round. Total 30 sc. SI st into the first ch to complete round.

Round 5: Ch 1. Work onesc into the first sc from the previous round, then twosc into the next sc from the previous round. Repeat from (1 sc, twosc, 1 sc, twosc, etc.) until the end of the round. Total 45 sc. SI st into the first ch to complete round.

Round 6: Ch 1. Work 1 sc into each sc from the previous round. Total 45

sc. Sl st into ch to complete round.

Round 7: Ch 1. *Work onesc into the first sc from the previous round, then twosc into the next sc from the previous round. Repeat from * (1 sc, twosc, onesc, twosc, etc.) until the end of the round. Total 66 sc. Sl st into the first ch to complete round. Tip: When you stop increasing the number of stitches per round, the circle does not get any bigger. This allows the sides of the basket to form. Rounds 8-16: Ch 1. Work onesc into each sc from the previous round—total 66 sc. Sl, stitch into the first ch to complete round. Do not fasten off.

Child's Mitten

The perfect complement to the watch cap is these matching mittens, which require making a thumb gusset and crocheting the thumb.

Finished size: See below. Instructions are given for four ages/sizes:

Ages 3/4 (cuff diameter 3.5 in./9 cm; cuff length 3.75 in./9.6 cm; hand length 4 in./ 10.3 cm)

Ages 5/7 (cuff diameter 4 in./10.3 cm; cuff length 4.25 in./ 10.9 cm; hand length 4.5 in./ 11.5 cm)

Ages 8/10 (cuff diameter 4.5 in./11.5 cm; cuff length 4.75 in./ 12.2 cm; hand length 5 in./ 12.8 cm)

Ages 12/14 (cuff diameter 5 in./12.8 cm; cuff length 5.25 in./ 13.5 cm; hand length 5.5 in./14.1 cm)

Materials (enough for the mittens and the hat on page 65): Kraemer Yarns Summit Hill 100 percent Merino Superwash Wool, 3.5 oz./230 yards

KTX1108 Garnet or KTX1110 Aquamarine: 1 skein for sizes 3/4 and 5/7; 2 skeins for 8/10 and 12/14

Hook: G or size needed to obtain Short gauge piece (2 inches) of contrasting color yarn or a coilless safety pin to use as a marker

Tapestry needle Gauge: For the cuff, nine back loop sc or ninehdc/1 inch;
4 patterns (1 row back loop only sc, 1-row hdc)/2 inches

Stitches and abbreviations:

Chain stitch (ch) Single crochet (sc) Back loop only (blo) Half double
crochet (hdc) Yarn over (yo) Skip (sk)

Tip: In the instructions, the first number of stitches or rows is for size 3/4. The number for the larger sizes is given in parentheses. For example, Work 18 (20, 22, 24) stitches mean work 18 stitches for size 3/4, 20 stitches for size 5/7, 22 stitches for size 8/10, and 24 stitches for size 12/14. Before you start making the mittens, go through the pattern and circle in pencil, the numbers for your desired size. This will help you avoid mixing sizes accidentally by reading the wrong number. Cuff (make 2)

Tip: The cuff is worked sideways. The first row will be joined to the last row to make it into a circle. Attach the yarn with hook by a slip stitch. Chain 18 (20, 22, 24).

Row 1: Work onehdc into the third ch from the hook. (The last three chains count as the first hdc stitch.) Work onehdc into each ch to end. Total 16 (18, 20, 22) stitches.

Row 2 (wrong side): Ch 1. Turn. Work onesc into the back loop only of next hdc and into each hdc to end of row. Tip: Count your stitches on each row to make sure you are not increasing or decreasing. If you find you are increasing, you are probably working a stitch at the base of the turning chain where it does not belong.

If you are decreasing, you are probably neglecting to work a stitch at the end of a row into the top of the turning chain below. Keeping your stitch count consistent will make your work look nice and neat.

Row3 (right side): Ch 2. Turn. Work 1 hdc into the next sc and into each sc to end of row. Work rows 2 and 3 a total of 8 (9, 10, 11) times for a total of 16 (18, 20, 24) rows.

Joining End of Cuff to Beginning

Attach the hook into the back loop of the next hdc with the right sides together, then into the corresponding loop (the one nearest to the one you have just hooked) from the first row of the chst. Yarn through, pull around, yo, pull both loops through, yo. Repeat until the row stops. Do not fasten yourself off.

Tip: To make sure the cuff is the right size, weigh. Make the child try it on if possible. Before you start, make the necessary changes (adding rows or cutting them out) to the cuff. Cuffs are worn unfolded, so the mittens remain on small paws, nice and long.

Palm

Be sure that the right side of the cuff faces outward. (The right side is the side that is more noticeably ribbed. You want the side faced out, so the cuff is not folded, so it will appear when the mitten is done.)

Ch 1. Ch 1. Function 28 sc (32, 35, 39) uniformly along the entire cuff edge. After getting back to the beginning, do not link with a slip stitch. In each stitch, just keep working, 1 sc, spiral fashion. Set the marker between the last and first stitches at the beginning of each new round by putting the thread between the last and first stitches. When you get to the next round, move the dot, so you can quickly count the number of rounds you have done. Using 4 (5, 5, 6) rounds to operate. Next round: You're going to leave room for the thumb now.

Ch 4 (5, 5, 6) sc, sk 4 (5, 5, 6) stitches, onesc in the round where the chain stitches begin in each stitch. Function 4 (5, 5, 6) sc in ch space, then onesc in each sc for an additional 12 (13, 15, 16) rounds or until the tip of the pinkie finger hits the mitten.

Next round: You will continue to decrease the number of stitches per round by missing the sc as led from the previous round. For each of the next

5 (6, 6, 7) stitches, work one sc. Skipping one sc. Repeat until there are 8 (9, 9, 11) stitches left at the tip of the mittens. Fasten it off, leaving a tail of 8 inches. Onto the darning needle, thread the tail. Draw all the remaining stitches out and draw to cover the interior of the mitten. Start of weaving on the inside of the mitten.

Trim Excess

Thumb Join the yarn on the right edge of the opening thumb. Sc 12 (14, 14, 16) stitches around the opening of the thumb Next round: Miss 1 sc, work onesc in each of the 5 (6, 6, 7) stitches that follow. Just do it twice.

Then, skip 1 sc, work onesc in each of the 4 (5, 5, 6) stitches that follow. Just do it twice. Function 1 sc in each of the remaining stitches for six rounds (7, 7, 8) or until the duration of the thumb is required. Next round: sc, miss the end of the round with me. Clamp off, leaving an 8-inch tail. Onto the darning needle, thread the tail. Draw out all the remaining stitches and tug to cover the interior of the mitten. Start of weaving on the inside of the mitten

Placemats

This delicate openwork and closed block design are called "fillet," from the French for "net." A meshwork pattern is created by chain stitches and double crochets. Floral, pictorial, or geometric may be fillet designs. Such placemats use a simple pattern of airy and stable squares on every table that feels at home. Placemat (make 4) With slip knot, join A to hook. 87. Ch 87.

Tip: Use one size bigger hook for the chains if the chains are normally tighter than the rest of the job. For the next row, turn back to the smaller hook.

Tip: Having a few additional chains is easier than being short. If you complete the next row and learn that you have additional chains, just unknot them.

Finished size: 12 x 16 inches

Materials: Royale Fashion Crochet Thread 100 percent mercerized cotton, article 164, size 3, 150 yards/137 meters)

Color A: 6 balls for a set of 4 placemats

Color B: 1 ball to trim four placemats

Hook: F or size needed to obtain gauge

Gauge: 5 dc/inch; 2.5 rows/inch Row 1: Dc in the fourth chain from hook.

The first threech is counted as the first dc in a row, so you can now have two maximum dc when you make the dc. Dc in each of the next five chain stitches, seven dc in all. Oh, [Ch 1. From the row below, Sk 1 ch. Three times, Dc in next chain]. In any of the next six chains, you will have three "holes." Dc. Repeat, finishing with an accessible section from all the way around.

Tip: The pattern has a solid stitch bank, then an openwork one, then a solid one. There will be 7 in each category as you count the solid stitches-one for the end of the openwork section and 6 for the solid section. In each openwork section, there will be three holes.

Line Two: Ch 4. Uh, transform. For the first dc and I ch, this count. Miss the ch-turning foundation and I have more ch, then dc from the row below into the next dc. Ch 1, for a total of three open blocks, bypass the ch below, dc to dc below twice. Work I dc into the next six dc below both of them. Ch 1, bypass ch below, dc three times down to ch below. Repeat from row to end. The final dc is worked from the row below into the top of the spinning ch so that you end up with a solid seven dc block.

Note: You will see the pattern emerging: openwork over openwork, solid over solid. Stop to make sure that you have the right number of open groups and the right number of solid blocks.

Row 3: Ch 3. Turn. This counts for the first dc. Do not work a stitch into

the base of turning ch—Dc into each of the next six dc below.]Ch 1, skip onech from the row below, dc into dc below] three times. Repeat from across, ending with openwork pattern (ch 1, skch from row below, I dc in dc below).

When you are done with row 3, you have finished the first set of stitches. Rows 4, 5, and 6 will be the opposite of those rows: you will have solid blocks of dc in rows 4 to 6 where you had openwork in rows 1 to 3, and openwork on rows 4 to 6 where you had solid blocks in rows 1 to 3.

Don't worry about stains-this cotton is machine washable.

Row 4: Ch 3. Turn. This counts as the first dc. Do not work a stitch into the base of the turning ch. (Work one dc into open space below by putting the hook right into space, not through the ch stitch, then one dc into top of dc from the row below) three times. This will give you a solid block of 7 dc, including the turning ch.

[Ch 1, skip 1 dc below, dc into the next dc below] three times. [Dc into the open space below, dc into next dc] three times. Repeat from across, ending with openwork pattern (ch 1, sk dc below, dc into next dc) three times. The last dc will be into the top of the turning ch from the row below.

Stop and look at your work. Make sure you have changed the pattern starting with row 4.

Row 5: Repeat row 2.

Row 6: Repeat row 3.

Rows 7-30: Repeat rows 4 through 6. Check your work frequently to make sure you have been consistent with the pattern. Fasten off.

CONCLUSION

A lifetime talent where you'll use to make complete presents for others and pieces for your home and wardrobe is the delicate art of crocheting. Consider learning a few basic stitches, with more advanced basic stitches, expand on

that. Next, find out what hook is most convenient for you in scale and design. Then, begin with basic yarns and patterns for beginners, and in no time, you will be a pro.

You don't need a lot of supplies to start crocheting. The crochet hook is the main item, and there are lots of various sizes and kinds. Choose one made of aluminum when you pick a beginner crochet needle since the thread can help the yarn glide effortlessly. The three simple crochet supplies you're going to have to have included an I-9 or H-8 size aluminum crochet ring, whatever fits better in your hand, a wool or acrylic yarn skein or string, and scissors.

Start by gripping your crochet hook as you might hold a pencil, gripping the hook between your thumb and index finger at the tiny indentation in the center known as a finger hold. For ease and power, you should slip your third finger upwards towards the tip of the hook. The hook is going to be partially angled toward you but should not be facing downwards or upwards.

As one of the first things you need to remember to get acquainted with crocheting is putting a slip knot on the crochet hook. It's really the way you put the yarn on the hook to start crocheting. Turn and thread the yarn onto the hook easily, wrap the yarn under the hook and draw it to tighten around the loop. If it's uncomfortable at first, don't fear; just start training, and it'll get simpler.

Beginning crocheters typically begin first by studying the stitch of the row. The stitch of the chain is one of the most important simple stitches that you would need to know since most crochet projects are focused on them. In a pattern, the chain stitch abbreviation for the plural form is "ch," or occasionally "chs" Usually, you can see 'ch' following by a figure. Ch 135 means, for instance, that you can crochet 135 chain stitches.

Now that you know how to create a slip knot and simple stitches, you are able to take on a project for beginners. You may start with a baby blanket or even a scarf made for new crocheters. Without abbreviations for simplistic

analysis, such beginner patterns can be published. Taking it gently when you begin your first project and be careful with yourself. It's all right if, if necessary, you have to start again at the start of the pattern.

HOMEMADE SOAP MAKING

Recipes for organic lotions made by eco-friendly ingredients. Guide to produce DIY hand sanitizer for personal hygiene and save money.

*“Because we all share this planet earth,
We have to learn to live in harmony and peace with each other and with
nature.*

This is not just a dream but a necessity”

His holiness, Dalai Lama

INTRODUCTION

Washing properly your hands helps to prevent the spread of infections and ensures health. However, in circumstances where water or soap are not affordable or accessible, it could be necessary to have with you hand sanitizers. This book shows how to produce sanitizers and soaps at home.

The demand for these products is increasing dramatically, so it is becoming extremely hard to find them in any store. Homemade production of soap can overcome this lack of supply. Also, it helps to save money and make truly green products, such as benefiting both households and the overall environment.

The production of a hand sanitizer is a very easy process. The ingredients of a sanitizer should be mixed carefully and accurately, by using highly sanitized tools. To deliver an effective product it is very important that the proportion of alcohol contained in the home-made sanitizer is at least 60%.

It is well-known that hand sanitizers containing alcohol, are more effective than regular soap in killing bacteria. The ideal strategy for your hygiene consists of washing frequently your hands with soap and water and using a hand sanitizer too.

Despite the scarcity of sanitizers in stores during an health crisis, there is good news. The good news is that homemade production requires only three ingredients. This book teaches how to easily make a hand sanitizer with ingredients that are already available at home. Also, it reveals recipes for homemade soaps with easily accessible ingredients. Let's see it together!

1. HAND SANITIZER

1.1 Important facts to know about Hand sanitizer

There is a high demand for hand sanitizer during this period, due to the fast spread of the virus. The best defense against contracting any kind of virus consists of firstly maintaining high standard hygiene, by washing hands regularly since this simple action can drastically reduce the bacterial load rested on the hands' skin. It is important to keep in mind that the homemade sanitizer is to be used as a substitution of water and soap in case the latter is not accessible.

Hand sanitizer is a [liquid](#) or [gel](#) generally used to decrease [infectious agents](#) on the [hands](#), in the healthcare setting, having more effect on killing microorganisms. Since the first humans started to live in modern homes, as we conceived today, to be attentive to cleanliness has been a priority. Also the fact of moving entire families or groups of people in secure homes, was an idea to escape from the external danger and gain protection in protected houses. The objective was to protect themselves from animals, enemy attacks, negative weather conditions and last but not least from the virus and bacteria.

Antoni Van Leeuwenhoek was the first one who discovered the bacteria, and understood that it could infect the people and the enormous gravity that it could be spread from person to person. Going back with the ages, we can know that the first instruments invented by our ancients, were composed of brooms and brushes, used from cleaning. The constant need to live in acceptable hygienic conditions is fundamental in our life, and later on, the rise of the industrial revolution, the mechanization brought high improvements to tools: technology and mechanics entered in our homes, as also professional cleaning stuff evolved too.

With the economical boom, which began in 1950, mostly the USA had a rise in almost all the sectors, including unneeded goods and electro domestics. This started a period called "The Good Life", which marked an incredible expansion of the entire economy, including the production of manufacturing, plastic and electronics. Another consequence of this boom was the expansion of the housing sector and marriages. American society started to be considered a consumerist country, and the consumption became

a habit for the community to copy. Homes, from places where to sleep after work, became part of the people community. A big part of the family budget was allocated to make them new and comfortable, creating nests of love.

Regarding the origin, the gel-based hand sanitizer was invented in 1966 and it was originally only used in sanatorium, hospices, hospitals and medical settings. The product started to be used for home and personal use until the 1980s and 1990s. In 1966 however, a nursing student named Lupe Hernandez from Bakersfield, California, found out that alcohol could be delivered in a gel: thus discovering hand sanitizer. Originally it was only used in hospital settings until it became commercialized by companies like Purell and Gojo in 1988.

1.2 Why is it important to clean your hands properly?

Washing your hands is the best way to protect yourself, your family and your community. It is very safe to wash your hands if you cough or blow your nose, when you make or eat food when you touch animals and you play with them, after using the toilet, when you play and do sport outdoor.

Hand hygiene is an essential practice to protect yourself against many diseases and infections. Indeed, regular hand washing is a simple, quick and effective way to prevent the spread of viruses and bacteria and thus the transmission of infectious diseases.



The risk of contamination is also much higher in collective environments (public transport, public places, etc.) where access to a water point is not always possible. Therefore, to reduce any risk of transmission or infection, the use of a sanitizer solution is recommended.

Germes can spread when:

You touch your eyes, nose, and mouth with your hands

You touch the food with unwashed hands

You touch surfaces or objects

You blow your nose, and sneeze and after you touch the other people's hands.

1.3 How should you wash your hands?

Washing your hands is a key part of preventing the spread of viruses. We can tell you the exact way to wash them. Wet your hands with clean water that could be warm or cold. When you are in front of your sink, rotate off the tap, and apply soap. Flap your hands by rubbing them together with the soap. Be sure to foam the back of your hands, among your fingers, and above your nails



Clean your hands for at least 20 seconds. You can sing your favorite song or the national hymn of your country! Wash your hands for the duration of

the song and continue under running water and then use a clean wipe or a paper towel to turn off the faucet, and then throw it away.



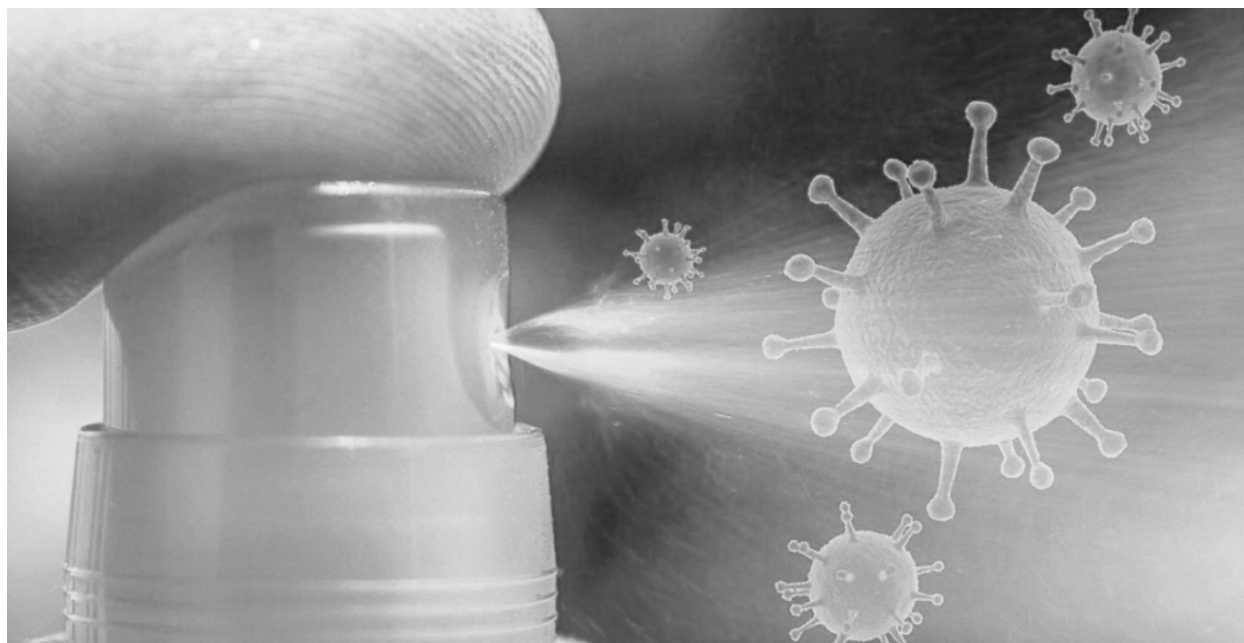
1.4 Which kind of germs the hand sanitizer kills?

The transmission of a virus can be done also from a contaminated surface. The virus stays on it for up to 20 minutes. Some viruses, like Salmonella and Coli, can live up two hours on surfaces. A temperature of 140 degrees of the water can kill the virus. Germs are also transmitted from unclean hands to food by an infected person who touches the food and didn't wash their hands after using the toilet. It is known that touching and eating food with dirty hands is not good for our body, but we know what happens if we do it. 15-30% of viral and bacterial infections are transmitted by the main vehicle of contagion, our hands, and this can be prevented by observing careful hygiene.

The hands are also in constant contact with our mouth and during the day they touch many contaminated surfaces, such as cell phones, shared keyboards, external surfaces to which everyone has contact, especially children who, unaware of bacteria and contaminations, put everything in their mouth regardless of the consequences.

Easy to take everywhere with you and practical to use, these products with bactericidal, virucidal and fungicidal properties allow you to quickly disinfect your hands wherever you are. This makes them a good alternative to

conventional hand washing.



1.5 Which ingredients do you need to make your homemade hand sanitizer?

¾ cup of [isopropyl or rubbing alcohol](#) (99 percent alcohol volume)

¼ cup of [aloe Vera gel](#)

10 drops of essential oil, such as [tea tree oil](#) or [lavender oil](#), or you can use lemon juice instead.

[Nitrile gloves](#) so you don't burn your hands when making the hand sanitizer.

The role of the essential oils is important for the fragrance of the mix. Then your sanitizer will be also a pleasure for you if you are used to the smell, and on the other hand, those not expensive products.

1.5.1 #Alcohol

Isopropyl alcohol is a [colorless, flammable chemical compound](#) ([chemical formula](#) $\text{CH}_3\text{CHOHCH}_3$) with a strong [odor](#). Be careful not to use any other types of alcohol like methanol, butanol, as they are toxic.

Isopropyl alcohol is miscible in water, ethanol, ether and chloroform. It is able to dissolve ethyl cellulose, polyvinyl butyral, many oils, alkaloids, gums and natural resins. Unlike ethanol or methanol, isopropyl alcohol is not

miscible with saline solutions and can be separated from aqueous solutions by adding a salt such as sodium chloride. The process is called salting out and allows to concentrate isopropyl alcohol in a distinct phase. You can find this product in pharmacies, drugstores or also on Amazon.

1.5.2 #Aloe Vera

You need to mix the isopropyl alcohol with another element; on its own it will burn your hands. The ideal solution is aloe Vera gel as it acts as a natural moisturizer. Aloe Vera is a medicinal plant. It has been used to treat various health conditions, centuries ago.



It's usually also safe to use Vera directly from the plant. Recently you can enjoy it in gel form. Aloe Vera creams, gels, and ointments contain the clear gel found in aloe Vera leaves. These products can be used usually to treat various skin conditions. Aloe is sold in capsule or liquid form to take internally to promote health and well-being. In Egypt, 6,000 years ago, Aloe Vera was considered the plant of immortality, also used during funerals or as a gift to pharaohs.

1.5.3 #Essential oils to use

[Tea tree oil](#)

Tea tree oil is an essential oil that can be used for several purposes, including keeping skin, hair, and nails healthy. Tea tree oil has been used as

traditional medicine by Aborigines for centuries. These native Australians squeeze tea tree leaves to extract the oil, which is then inhaled to treat coughs and colds or applied directly to the skin for healing.

Lavender oil

Lavender oil - or, more precisely, lavender essential oil - is a compound obtained from the flowering tops of *Lavandula angustifolia*, a plant belonging to the Labiatae family.

Lavender oil has numerous properties, which make it useful in the external treatment of several ailments. In particular, this oil is widely used in the field of aromatherapy, where it is renowned for its calming and relaxing properties.

Several studies have confirmed that lavender essential oil has a moderate antibacterial activity (albeit lower than that possessed by other oils, such as, for example, rosemary essential oil), associated with an interesting antifungal activity.

Lavender essential oil is capable of exerting a depressive action on the central nervous system, which is also carried out by simply inhaling the product.

Lavender oil is attributed with interesting anti-inflammatory properties, which seem to be exercised through the inhibition of the activity of phospholipase C. Furthermore, a study has shown that lavender essential oil is also able to exert an antinociceptive action.

Lemon juice

Lemons are high in vitamin C, fiber, and various beneficial plant compounds. These nutrients are responsible for several health benefits. It has antioxidant properties due to the citric acid contained in it. This precious juice also has antioxidant properties. And there is much more. As it is known, lemon juice contains significant quantities of vitamin C (100 grams bring more than 100% of the daily dose), powerful antioxidant, a valid ally of our immune defenses and in the absorption of iron. As if it were a magic potion, here are some of the numerous benefits made from cheap and easily available lemon juice (more than that!): it promotes digestion; stimulates the function of the liver and intestines; used together with baking soda, it helps whiten your teeth; soothes sunburn and insect bites; antiseptic, it works well as a first

intervention disinfectant; soothing for the feet, if used for foot baths; on the skin, excellent as anti-acne, anti-eczema and against "age spots".

According to US scientific studies, lemon is an excellent support for the elimination of kidney stones, and it is believed to have positive effects also on the control of blood pressure and clotting.

2. SIMPLE RECIPES TO DO AT HOME

As you will have understood, the hydro alcoholic gel is a must, which we should all have on hand at all times of the day. However, it is very popular, especially in times of epidemics, and is sometimes difficult to obtain.

The solution? Make your own hand sanitizer!

We will show you a quick and simple recipe to make your own hand sanitizer at home.

2.1 First Recipe

We will show you a recipe, nothing could be easier. Pour all ingredients into a bowl, after mix them up. Take the following elements: rubbing alcohol, optional essential oils ready and measured out, and also aloe vera. If you don't use enough aloe gel, it will [dry out the skin on your hands](#). This act can cause a [crack or bleed](#).

Using a funnel, you put your hand sanitizer into the bottle of your choice, remember to label it with the words "hand sanitizer", screw the top of your bottle on tight, and use.





There are some tips to use hand sanitizer effectively: apply on the palm, rub your hands together and continue rubbing for 30-50 seconds. The hands will dry in 60 seconds; in this time the hand sanitizer will kill most germs.

2.2 Second recipe

Get the necessary ingredients. Some people prefer not to use alcohol in their hand sanitizers, as it has an intense smell and can have significant dehydrating effects on the skin. A witch hazel gel is a great alternative. Tea tree oil provides additional antiseptic benefits. Here there is what you will need:

- 240 ml of pure aloe vera gel (preferably without additives)
- 1 teaspoon and a half of witch hazel
- 30 drops of tea tree oil
- 5 drops of essential oil, for example lavender or mint
- Soup bowl
- Spoon
- Funnel
- Plastic container

Mix the aloe vera gel, tea tree oil and witch hazel. If the mixture seems too liquid, incorporate an additional spoonful of aloe vera to thicken it. If it is too

thick, add another spoonful of witch hazel.

Incorporate the essential oil, Since the smell of tea tree oil is already quite intense in itself, do not overdo it with the added essential oils. About five drops should be enough, but if you want to increase the doses, add one drop at a time.

Pour the mixture into the container through the funnel. Place the funnel in the container and pour the hand product into it. Once filled, close it with the cap until ready to use.

If you want to take it with you during the day, opt for a small plastic squeeze bottle.

Store any leftover gel in an airtight jar.

2.3 Third recipe

We will show you an other recipe how to make the disinfectant with the WHO (World Health Organization) recipe. You need a graduated glass and scrupulously stick to the list of ingredients, without changing anything. With the doses that I will indicate you will get half a liter of disinfectant, but those who prefer can double or triple them to get more.

416 ml Ethyl alcohol

21 ml Hydrogen peroxide 3%

7 ml Vegetable Glycerin / Glycerol

55 ml Distilled water

Ethyl alcohol can be found at the supermarket in the liquor department and is colorless. I want to clarify that it is not possible to use the classic pink alcohol for this recipe. Hydrogen peroxide is easily found in any supermarket or pharmacy. You can find glycerin in the pharmacy, just ask for it at the counter! Distilled water can be bought easily from the supermarket, but if desired it can be replaced with water brought to a boil and left to cool. The procedure for making the disinfectant is very simple, just mix all the ingredients without a precise order. Transfer the liquid obtained in a well disinfected container with lid; being an alcohol-based solution this disinfectant tends to evaporate, so it is important to close it properly. Ready the disinfectant let it rest for 72 hours so it can be used! Like any disinfectant, this too must be stored in suitable containers, with a label that specifies the content and kept away from the reach of children and pets

2.4 How do you use your antibacterial solution?

There are some tips to use hand sanitizer effectively:

The first of these is not to use it on wet hands. The hydro alcoholic solution should only be used on dry hands for optimal use.

The application of the hand sanitizer must then be carried out meticulously with careful friction of at least 30 seconds:



First, take a small amount of your antibacterial gel and apply it to the palm of your hand.

Then rub your hands together. At this stage, no part should be left out. Make sure to rub the back of each hand, palms, thumbs, fingertips and nails, spaces, the backs of the fingers, not forgetting the wrists.

Continue rubbing for 30 to 50 seconds. It is important to maintain a friction time with the product of at least 30 seconds until your hands are dry. If the product does not dry sufficiently, the effectiveness of the product will be reduced.

Hands generally dry; in 60 seconds during this time, the hand sanitizer will kill most germs. When your hands are dry, the process is complete. They are disinfected and do not need to be rinsed or wiped off.

2.5 Making hand sanitizer at home: Warnings

As easy as it is to make your own hand sanitizer, you should be aware that rubbing alcohol in high quantities can damage your skin. Make sure you stick to the 2:1 proportion to keep the alcohol content around 60%.

The rapid depletion of the flasks and, mixed to the high prices of the product has brought many people to make hand sanitizer at home. Working with inflammable substances may not always be a good option, especially if you haven't got any knowledge of chemistry.

Hands sanitizer mainly consists of alcohol, and hydrogen peroxide. The production of hand sanitizer could cause irritation to the eyes and narcotic effects like dizziness and nausea. You should wash your hands when you get off buses, and every time you touch something. The use of gloves could be an alternative to this.

It can prevent different infections. Another important thing to remember is that the use of hand sanitizer when your hands are dirty is not a good idea. Hand sanitizer is only an antiseptic, so on dirty surfaces the bacterium doesn't die. You have all the information you need to produce your own hand sanitizer, but you do so at your peril.

3. STAY CLEAN RESPECTING NATURE

Cleaning your home and office is important in respect for the people who live inside it; but how important is it to do it also respecting the environment? Recently the attention to ecology, the environment in which we live, the ecosystem, is subject of great social and civil impact, so much so that even the world of cleaning companies is changing and also the cleaning products we use.

Unfortunately, it is well-known that household and professional cleaning products are often polluting and harmful to the surrounding environment, so much so that ecologists have always raised strong controversies and campaigns precisely against the use of these detergents.

Our house, especially if inhabited by children, is often dirty and untidy. The need for cleaning is mandatory, above all to prevent children from being contaminated by bacteria and other types of microorganisms that are enemies of health.

To try to clean deeply, we often can make mistakes of using very aggressive detergent products, with the presence of surfactants, which facilitate cleaning and remove stubborn dirt.

Unfortunately, these detergents are highly polluting and despite rinsing, they remain attached to the floor and therefore in contact with our skin. In the hope of cleaning well, we risk doing even more damage to health, as well as to the external environment.

Ecological products, on the other hand, are formulated with ingredients of plant origin and exploit essential oils and antiseptic properties from nature.

The presence of soluble oils, vegetable substances and salts dissolved in water, allows to obtain a deep cleaning, in maximum safety for health.

Many people, because of their commitments, are unable to dedicate time to the eco-sustainable cleaning of their home and therefore, going to the supermarket, they buy what they find, perhaps the cheapest product probably with a very high environmental impact. According to recent statistics, the production of chemicals in Europe is 33% and between 15 and 20 chemicals that an average family uses at home for a total of about 400 million tons of chemicals produced from 1930 until today.

The renewed interest in the respect and care of the environment around us, has meant that many companies of products to be used for cleaning, have started to create and market products that are completely green, non-polluting and made with completely natural ingredients. Choosing an eco-friendly product does not mean that the latter has a poor cleaning and sanitizing action, indeed, these type of green products have nothing to envy to strong and polluting products.

On the rise in supermarkets, we find many bottles or draft detergents, highly recommended for the respect of the environment: buying the empty bottle only once, we can always use it, paying only the refill of detergent, thus saving about 50 - 60 %, avoiding plastic waste.

But if you want to completely eliminate the impact caused by household cleaning products, and at the same time keep the rooms sanitized, the alternatives exist and your grandmothers will be able to confirm it to you! We would like to keep an eye also on another way to keep in good health and practice good hygiene:

3.1 Essential oils

Essential oils can be defined as natural compounds of plant origin made up of mixtures of volatile substances at room temperature. In other words, essential oil is not constituted by a single molecule, but by a mixture of different molecules, generally of a terpenic nature. Essential oils or essences are natural compounds of plant oils that are characterized by the presence of volatile substances that give the product different smells and fragrances. It is no coincidence, therefore, that essential oils are also known as "volatile oils".

Characteristics and properties of each essential oil may vary according to the mixture that constitutes it. However, it is possible to identify some characteristics common to all essential oils. From a chemical point of view, these substances are characterized by marked volatility (presence of low boiling compounds) and a composition based mostly on compounds having low molecular weight.

From a biological point of view, however, essential oils are characterized by being produced from specific cells and then poured out, or collected in specialized spaces and specific organoleptic characteristics.

3.2 Nasal Irrigation

It can effectively and quickly restore the functionality of the mucous

membrane of the nose, restoring its purifying, humidifying and immune function. The activity of nasal washing does not just clean and free the nasal pits from the accumulation of secretions, but also performs a decongestant action, increasing the passage of air inside the nasal cavities and alleviating the typical unpleasant sensation of the nose "closed".

In this way, the well-being of the individual is obtained by perfecting nasal breathing and, consequently, promoting the best functionality of the lower respiratory tract.

This technique has ancient origins. For thousands of years, in the Yoga tradition, nasal pits have been cleaned with saline solutions. As you know, the goal of Yoga philosophy is to connect the body and soul with God to obtain the state of psycho-physical well-being. For this purpose, meticulous attention is paid to breathing techniques. It is in this context that the practice of JalaNeti takes place, that is, to run a saline solution into the nose using an ampoule called Lota resting on the nostril that you want to cleanse.

3.3 Propolis Spray

The propolis used is naturally produced by bees, without forced production techniques. Used as an antiseptic and defense substance for the hive, it has a very unique and agreeable smell, very similar to that of honey with the addition of strong balsamic notes.



Propolis is made up of numerous natural, assorted substances, the percentage of which is highly unpredictable depending on the seasons and the type of plants around the hive. It contains a high content of flavonoids (in particular galantine), tannins, coffee acid and essential oils which donate to the physiological well-being of the throat.

3.4 Vitamins

The food normally included in the diet, in general, do not correspond to good sources of vitamin D. However, regular utilization of those that are richer in them can, in part, help offset the insufficient production of vitamin D3 by the skin in periods of less exposure to the sun, such as in winter or when you cannot spend enough time in the open air during the day due to diseases, unfavorable weather conditions, professional commitments, etc.

Among the foods that contain the greatest quantities of vitamin D we mention: some types of fish like salmon, herring, mackerel, sardines and in general all the fish of the North Seas- also rich in omega-3 fats beneficial for the nervous system and cardiovascular system, pig's liver, whole milk and yogurt, butter, fatty cheeses, eggs, milk and / or egg-based creams. Marseille soap is a 100% natural product based on vegetable oils and sometimes essential oils useful for the care of the body, face and hair thanks to the remarkable properties it has.

3.5 Wash your clothes with natural ingredients

Often washing clothes in the washing machine is not adequate to have your clothes completely safe and sanitized. Often the use of chemicals can cause allergies and dermatitis and, as they are not biodegradable, they also cause pollution. We want to show you some easy remedies for disinfecting and sanitizing your laundry.

3.5.1 Lemon

Lemon is an excellent friend for disinfecting and perfuming laundry. Just add a few drops to the detergent by hand or in the washing machine.

If you have soft and delicate woolen items, simply leave them to soak for a day in a solution of water and lemon juice (2 lemons per liter of water). In order not to make the garments yellow, simply immerse the clothes in a tray with cold water and the juice of two lemons and leave them to soak for about an hour. To revive the silk, however, just wash it with soap, rinse it and leave it to soak for a few hours in water and lemon juice.

3.5.2 Sodium per-carbonate

Sodium per-carbonate is an excellent whitening, totally natural that also has powerful sanitizing properties. It comes in granular form and acts thanks to the presence of oxygen and can eliminate even the most stubborn stains. If you are going to do a whitening wash thoroughly, add a spoonful of per-carbonate and wash at 60 ° C, the temperature at which this compound becomes more effective. You can do the 60-degree test with or without per-carbonate and the difference is noticeable.

In the case of a normal wash, you can do exactly the same, but you only need touse a spoonful of sodium per-carbonate and set the temperature of the washing machine to 40°C.

But be aware that it is not suitable for delicate clothes like wool, silk or leather. It does not pollute, and it does not contain enzymes, surfactants, optical brighteners, nor phosphorus nor allergens.

3.5.3 Vinegar

Vinegar is a good disinfectant, as well as degreasing and deodorant. Suitable for removing stains, even the most stubborn ones, and fixing colors at the first wash. Just put the clothes to soak in a bowl containing hot water and half a cup of white vinegar. After one night it will be sufficient to wash them as usual.



The vinegar used during the rinse phase is also an excellent anti-lime scale that makes the washing machine last longer or, used in place of the softener, prevents detergent and limestone "hardening" the fibers of the fabrics leaving them soft to the touch.

Adding half a cup of vinegar directly when doing a wash increases the cleaning power of the detergent itself, making the colors more intense and bright. It also removes the halos of deodorants from clothing and eliminates bad smells, especially those of the kitchen and cigarette. Furthermore, if you add the vinegar to the normal washing cycle, it will be able to rid the garments of animal hair.

3.5.4 Tea tree oil

Tea Tree essential oil has known antibacterial, healing, antifungal, and anti-odor properties. It is an extract of the leaves of the Melaleuca tree and is an excellent solution for sanitizing and perfuming laundry, being a powerful natural disinfectant.

Just add 4-5 drops to the detergent. To have a do-it-yourself disinfectant, you can put a tablespoon of tea tree oil in a liter bottle of white alcohol for liquor, leave it to rest for a week in a dark bottle and then use it in the wash, adding 1 or 2 tablespoons for every 5 kilos of laundry

4. OTHER PRODUCTS TO MAKE AT HOME

We have discovered that many people decided to create homemade soaps, both to save money and to make products that are truly green. However, is this always the best choice? Let's see the advantages and disadvantages of homemade soap.

Creating a soap at home is a way to save money and respect nature. The greatest benefits of homemade soap certainly exist in the abundant nutritional properties that can characterize the amalgam. Apart from the Fun Factor, those who love DIY and the ecology, find that the best thing to do is create bars of soap themselves, using ingredients that are as natural as possible! On the market, there are many types of soap, but these can cause allergies in people with sensitive skin: this is due to the chemicals they contain, including caustic soda.

We will decide, following the basic rules, which properties to give to our soaps: soothing, nourishing, toning. You can also choose which type of process should be chosen according to your needs: cold, warm, liquid, solid, semi-transparent, and whether it is to be used for body cleansing or for laundry.

The three ingredients used for what is called soap are: oils or fats, which are weak acids of animal or vegetable origin. The base oils or fats are those used in greater quantities in recipes, and they are also the least expensive and easiest to find. A basic fat widely used in Italy and Europe is olive oil, other conventional categories are sunflower, corn and soy peanut oils, while in the USA, palm oils or animal fats are preferred. Therefore, among the major advantages of self-production, there is the possibility of choosing the ingredients, the type of processing but above all, the savings. In fact, with a few ingredients, we can also obtain large quantities of soap that could be enjoyed for a long time.

The term nourishing oils refers instead to rarer, more valuable and more expensive oils that can give the soap itself a character or special properties. These include almond oil, jojoba oil, macadam oil, hazelnut oil, karate butter. Besides, the self-produced soap could also become an excellent hair shampoo. Being able to reach a production of this type is not very simple since we do not have the same tools present in the companies that allow you

to obtain chemically functional hair products. With exercise, however, you will surely be able to obtain valid soaps that have the characteristics of shampoos.

Another advantage, not to be underestimated, is that you can choose the fragrance you prefer, opting for the addition of an indispensable oil within the compound.

4.1 Marseille soap

Marseille soap is a 100% natural product based on vegetable oils and sometimes essential oils useful for body care, face and hair thanks to the remarkable properties it has. Marseille soap is biodegradable and non-toxic. The quantity of caustic soda is calculated based on the "saponification coefficient" of the oil or fat used (olive oil = 0.134), while the quantity of water is approximately 30% of the weight of the oil.

As precaution, mouths, eyes and hands are protected by providing masks, goggles and gloves. Never use containers or tools made of aluminum, tin, copper, iron, cast iron, non-stick cookware and polystyrene. Choose stainless steel or heat resistant glass. Put the water in a container and just pour slowly while continuously stirring the caustic soda. The temperature could rise up to 100 degrees. Wait until it drops to 45 degrees, check regularly using a suitable thermometer. Simultaneously, heat the olive oil to 45 degrees. When both liquids have gone from the same temperature, pour water and soft drinks into the oil and mix quickly, with an immersion blender, while the mixture enters the "belt" phase. At this point, it will have become lighter and denser and by letting the mixture run from the blender, it will remain in relief on the surface. Here, the soap is poured into plastic recovery mold shaving lids, for easy extraction. Wrap in an old blanket for at least 24 hours. Once this phase is over, the solid soap can be removed from the molds. Following this, cut them into soap bars and leave them to mature in a dry and ventilated place for at least a month. It is preferable to handle it with gloves for the first two weeks.



The soaps used on all days are not more than a chemical reaction produced by a strong base (usually sodium hydroxide) and a fat grass (long-chain carboxylic acid).

There are two different ways to make soap, the hot method and the cold method.

We recommend the hot method.

Every soap has a different effect on our skin, I will illustrate to you how the soap is made.

Let's see the necessary equipment and the ingredients to make them.

Equipment:

electronic scales (the doses must be precise)

some wooden spoons

heat resistant pyrex containers

stainless steel container

oven thermometer

an immersion blender

plastic containers or other molds, including wooden ones.

Ingredients:

280 gm of preferably distilled water

1 kg of extra-virgin olive oil

134 gm of caustic soda

4.2 Coconut oil soap

Soaps that have a high coconut oil content are very creamy and contain anti-bacterial and anti-fungal properties and soothes the skin without the use of harmful chemicals. The fatty acids help with the removal of dirt, dead skin and other skin impurities. Coconut oil soap is an excellent moisturizer for both the skin and the hair. The properties of the coconut oil also help remove dead skin cells. The oils also help prevent or reduce acne. They also help firm up your skin, and help you look younger as the soap is rich in antioxidants.

First, to make our soap we will keep having all the ingredients such as: coconut oil, olive oil, soda, coffee, coffee grounds, bran

Tools: Kitchen scales, stainless steel thermometer, gloves, protective goggles, mask, immersion blender, stainless steel pot, mixing bowls, stainless steel spoon, silicone spatula, stencil soap, baking paper, towel.

Settle into a well-ventilated area and wear protective clothing, goggles, mask and gloves. Pour 250 g of coconut oil and 350 g of olive oil into two different stainless steel pots. Prepare 225 g of liquid coffee in one bowl and 90 g of soda in another. In a third bowl pour 1 tablespoon of ground coffee and 1/3 cup of bran and then add the soda to the coffee and mix to dissolve. Warning: always add soda to the liquid, never the other way round. A chemical reaction will be started and the mixture will become quite hot, at this point put it aside. Now you can remove glasses and mask, not gloves.

Melt the coconut oil over low heat until the solid parts are removed. Add the olive oil. With a stainless steel thermometer, check the temperature of the oils and the temperature of the soda solution until both are between 40 and 50 degrees.

Pour the solution into the oils and use the blender to emulsify until the mixture begins to thicken and the consistency looks like a pudding. This process will take 5 to 10 minutes with a classic blender and up to an hour with an immersion blender. Once the soap has thickened, stir in the coffee grounds and oat bran with the stainless steel spoon or spatula.

Slowly pour the mixture into a soap mold. Lift and touch the mold against the tabletop a couple of times to release the air bubbles. Cover with baking paper, and then wrap the whole mold with a towel to insulate it.

After 24/48 hours, remove the towel and take the soap from the mold. Let the soap bar rest for another day to harden further before cutting into soap bars. Any sharp knife will work fine. A vegetable peeler can be used to smooth the sides if you prefer a perfect soap.

4.3 Vanilla soap

You can make vanilla soap only with a fragrance, as there is no vanilla essential oil. Although soap supply companies go to great lengths to make their synthetic fragrance sound like a true essential oil. Most people love the scent of vanilla, and often this scent is added to other scents, such as raspberry, sandalwood, lavender and orange.

The vanilla is famous for being a potent relaxer. Vanilla extract contains specific antioxidants that are vital in anti-aging skin benefits. These antioxidants can soothe wrinkles, heal damaged skin, and likely spice up an otherwise smelly anti-aging face mask.

Vanilla Soap revitalizes your skin cells and promotes its moisture retention capacity. As you bathe, the Vanilla Bean acts as a mild exfoliated while constantly releasing the fresh intoxicating aroma of Vanilla.

To make our soap vanilla homemade soap we suggest a classic recipe that combines creamy vanilla fragrance with hints of sugar and musk. Plus the addition of lanolin to this homemade cold process soap recipe makes this handmade soap not only feel extra luxurious in the bath, but it also makes it a great shaving soap by giving your razor that extra slip for a smooth shave.

You can “dress up” this vanilla homemade soap recipe with a touch of peppermint and a cream-colored layer in the middle by setting aside about a fourth to one-third of the soap after you’ve mixed the lye-water into the oils and it’s reached a light trace but before you add the fragrance oil.

After setting aside a portion of unscented soap, add the vanilla fragrance oil to the soap in the pot and mix with your stick blender until you reach a medium trace. Pour half of this soap into your prepared mold.

Now add peppermint essential oil or fragrance oil to the soap you’ve set aside. If you reserved 1/3 of the soap add .35 oz. of peppermint essential oil or .9 oz. of peppermint fragrance oil. If you reserved 1/4 of the soap use .26

oz. of peppermint essential oil or .66 oz. of peppermint fragrance oil. Mix well with your stick blender to full trace then pour on top of the first layer of vanilla soap you poured.

Now pour the remaining vanilla soap into your soap mold on top of the previous two layers. Dust with pearl, silver, or white sparkle mica powder if desired then cover and set aside for 24 hours before unmolding and cutting your soaps.

Hand hygiene is an essential practice to protect (and be protected) against many infections. Indeed, regular hand washing is a simple, quick and effective way to prevent the spread of diseases .

We taught you how to do a homemade hand sanitizer with ingredients that are already available at home. Also, we reveal recipes for homemade soaps with easily accessible and eco-friendly ingredients.

This guide is not to be intended as a medical instruction; though, it is a demonstration that we can produce what we need in the comfort zone of our home by, further saving money and respecting nature.

Choosing a green product does not imply to be worse off in terms of cleaning and sanitizing action; in this perspective, in fact, the type of green products we propose has nothing to envy the usual (but polluting) products.

Now that you have all the tools, go out there and use them!

If you liked this book please leave us a review, we would really appreciate if you spend part of your time to comment and improve our guide.

Notes

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MICROGREENS

A guide to begin growing healthy gardening and cultivating methods of plants, herbs, vegetables and fruits in soil. Tips for hydroponics and raised bed systems.

LINA PRESLEY

*“Nature does not hurry,
yet everything is accomplished”*

Lao Tzu

INTRODUCTION

Microgreens are young plants of vegetables, herbaceous cultures and aromatic herbs. On average, they can be harvested between the seventh and twentieth day, or so after their germination. Although they are often used for aesthetic and decorative purposes, microgreens also have an excellent nutritional profile, to the point of being considered as real superfoods.

Many people decide to grow them in their own homes to have them always available, because it reduces to a very simple process, even for those who are not expert in cultivation practices. This is a really new cultivation, which until recently seemed like a simple utopia, but it is beginning to spread more and more.

This book shows gradually and appropriately how to cultivate them, both for personal use or for business purposes. At the same time, we will offer other tips about agriculture, natural methods of fertilizing the soil, useful for growing microgreens and other plants.

The last part of this book will describe new types of gardening such as bed raised gardening, vertical gardening and hydroponics.

Do not miss the opportunity to discover these new agricultural practices and a whole range of plant types, immersing yourself in reading as a hobby, for business or simply, for the satisfaction of improving your feeding style, preparing a genuine and tasty dish with natural vegetables.

Let's start together this journey in the cultivation of microgreens!

MICROGREENS CULTIVATION

Microgreens are the products obtained from seed germination and from their growth in water, harvested before development of real leaves and meant to be consumed entirely, including the seed. The term **M**icro-greens does not have a legal definition but is generally used to describe young and tender edible seedlings produced from seeds of various species of vegetables, crop herbs, aromatic herbs and plants spontaneously.

The seeding density:

Large seeds = 1 seed/cm²

(e.g. chickpeas, peas, corn, etc.)

Small to medium seeds = 2 seeds/cm²

(e.g. radish, wheat, etc.)

Very small seeds = 4 seeds/cm²

(e.g. arugula, turnip top, broccoli, cauliflower, chicory, etc.).

From an agronomic and commercial point of view the choice of species to be cultivated for the production of micro-agents is very much linked to the availability of quality seed, characterized by high and homogeneous germinability, not chemically treated, hygienically safe but at the same time available at low cost. In addition, what is important is the choice of species that can be cultivated all year round and that have particular thermal and environmental requirements, especially in the phase of germination. Finally, a commercially critical aspect is the post harvest or shelf life of the product.

There are different kinds of microgreen plants. The differences already start during cultivation. There are those obtained from special seeds and using above ground cultivation systems (e.g. on coconut fibre) in protected environments, such as greenhouses, where you can manage the parameters that determine their growth (light, humidity and temperature). In this way, all treatments for pest protection are minimized, or not done at all, and no fertilizers are used. The microgreens cultivated in a more traditional way

harvested in advance, as soon as they develop their first leaves, that is only 10-20 days after sowing. The microgreens have the advantage that they can also be marketed intact, together with the whole growing substrate: it is who consumes them that cuts them, even just a few minutes before use. This is important because it guarantees a longer life of the microgreens and ensures a high quality in terms of freshness and nutritional value. The freshly harvested microgreens are washed, packed in small plastic containers and immediately refrigerated and kept at low temperatures until consumption. Being live seedlings, they are kept in the refrigerator for up to 10-15 days. Sowing is generally done by manually distributing the seeds on the surface of the substrate. Germination must take place in the absence of light, with temperatures suitable for the species (15-20 °C). For the production of the micro-organisms the seed does not need to be placed in depth, also to avoid that during germination the sprout is soiled by the same substrate. However, during this phase, the seed must be kept humid, to facilitate complete germination; therefore, for a period of two or three days after sowing, the cultivation trays can be covered, without touching the seeds, using, for example, a black plastic film, with the aim of increasing the temperature and therefore the germination speed and maintaining conditions of high humidity in the germination environment. Once germination has taken place, the cover must be removed. Unlike common leafy vegetables grown in the field and which, once grown, are ready for consumption.

The seeds, which can be grown in any season, germinate without the aid of fertilizers or parasites, given their short growth times, and this is in line with the aim of guaranteeing genuine products through their early harvest. On this part of the book we are going to describe all the aspects related to the cultivation at home, to help you on the production of self-made, but not only microgreens. For this purpose, you have to know about synergistic agriculture, to combine rightly different kinds of vegetables respecting them; you will understand how to create a garden at home if you cultivate microgreens or not.

History and info about Synergistic Agriculture

It has been shown that some plants help each other in their growth, while others hinder each other by weakening. Synergistic agriculture is based on these principles. It is a natural and ecological method of cultivation, which is advisable to apply when setting up a vegetable garden or garden on your

balcony.

Synergistic gardening is a cultivation method based on the principle of reciprocity. As the soil makes the plants grow, the plants create fertile soil through the organic chemical residues together with microorganisms, bacteria, fungi and earthworms.

The products obtained with this practice have a different quality, a different taste, a different energy and a greater resistance to disease-carrying agents; through this way of cultivation, the energy goes back to the soil. This promotes the soil's mechanisms of self-fertility and making agriculture a sustainable human activity.

Natural agriculture is based on observing nature and taking responsibility for its actions. Simple solutions are chosen and intervention is limited to strictly necessary practices, without hindering natural cycles. Natural agriculture is also an ecological path, whose aim is not only the cultivation of plants, but above all respect for the environment: "We do not inherit the world from our ancestors; we borrow it from our children. It is our duty to return it to them", as quoted in a proverb of the American Indians.

Synergistic gardening, a system of organic gardening, is a method of cultivation developed by the Spanish permaculturist and farmer Emilia Hazelip.

It is based on the principle, widely demonstrated by the most up-to-date microbiological studies, that while the soil makes the plants grow, the plants create fertile soil through the organic residues they leave and their chemical activity, together with microorganisms, bacteria, fungi and earthworms.

The products obtained with this practice have a different quality, a different taste, a different energy and a greater resistance to disease-carrying agents; through this way of cultivation, more energy is returned to the soil than is taken, promoting the mechanisms of soil self-fertility and making agriculture a sustainable human activity.

Emilia Hazelip was a Spanish agronomist. She was a pioneer of sustainable and permanent agriculture, designing and developing the method of cultivation of synergistic agriculture, the result of the adaptation to the Mediterranean climate of natural agriculture by the Japanese microbiologist Masanobu Fukuoka and Permaculture by Bill Mollison and David Holmgren.

Emilia Hazelip trained in organic farming in California in the early sixties

and, since 1978, she showed interest in the natural agriculture of Masanobu Fukuoka thanks to the reading of her book *The Straw Thread Revolution*. When we change the way we grow our food, we change our food, we change society, we change our values.

The Straw Thread Revolution explains how to pay attention to the relationships between all things, causes and effects and how to be responsible for what you know. When Fukuoka refers of what he calls his agricultural methods of "not doing," a Westerner might conveniently recall Matthew 6:26: "Follow with your eyes these beings that fly in the sky: they do not sow or reap or have barns to pile something up. It is your Father, the heavenly Father, who thinks of feeding them."

There is in fact a close relationship between nature and divine providence, a relationship that the technological environment tends to erase by suffocating nature and making providence useless. This book constitutes a turning point for a liberating revolution.

"The term Permaculture is a contraction of "permanent agriculture" and "permanent culture", and means that every culture cannot survive for long without a sustainable agricultural base and land use ethic. The word has become known throughout the world thanks to Bill Mollison's book of the same name. Translated into all major languages, the book has sold over 80,000 copies worldwide. In extreme synthesis, synergistic agriculture is the art of combining knowledge from different disciplines (natural agriculture, climatology, botany, ecology, bio-architecture) to design in harmony with nature, an itinerary of prosperity and well-being. The aim is to create an ecologically effective and economically productive system, able to meet the needs, avoiding any form of exploitation and pollution, and therefore sustainable in the long term.

The Four Principles of Synergy Agriculture

1.No Tillage.

Total absence of ploughing or any other type of soil disturbance because the soil is worked by itself thanks to the work of the roots of the plants and the fauna and microfauna present underground.

The active layer of the soil where the maximum biological and biochemical activity is concentrated is at a maximum depth of 30 centimeters,

where there is oxygen, which represents the active layer of the soil where the optimal degradation of the organic substance and its transformation into humus, on which the farmer intervenes, is achieved. For soils where silt and clay prevail, it is better to work around 15-20 cm. In wet soils with low temperatures, the process of mineralization of organic matter is slow and the losses of ammonia and carbon dioxide are modest. This is why the minimum tillage and hard sowing have spread to areas where the climate is cool and rainy'.

The soil is neither plowed nor disturbed except at the beginning, during the creation of the pallets (flowerbeds). This preserves the stratification of the soil (tissue structure) so as to respect the activities of all forms of life present and guarantee its continuity. The soil is seen as a real biochemical laboratory, in which CO₂ storage also takes place, so not working the soil prevents it from being dispersed into the atmosphere as after each plowing, contributing to the greenhouse effect.

2.No Contribution of Fertilizers.

Fertilization of the soil is continuous thanks to plant roots never removed from the soil and mulching, i.e. permanent organic cover. This has led to the development of an idea of synergistic agriculture using only mulch, to the detriment of any type of fertilizer. In practice, the soil above the roots or around the crops is covered with a natural material, such as straw, which insulate the soil, protecting it from rain and heat, and preventing the development of weeds, threatening the crops.

3.No Synthetic Treatment.

Fertility is given by the organic covering of the soil, as it happens in nature, where the detached leaves cover a layer of material that decomposes forming the humus. This process can be recreated in our vegetable gardens. We recover materials such as straw, leaves, bark, twigs, etc., placing a layer above the ground. This also ensures a stable humidity and temperature level for the soil and plants; it retains water and substances in the soil, protecting against heavy rainfall and drying out; it also regulates and controls the proliferation of invasive wild herbs.

The use of synthetic chemicals is not tolerated because it is not natural and sustainable. Pesticides are substances used to protect plants from pests

(weeds), fungi to fight diseases and insects. Unfortunately, these substances not only free us from unwanted species, but can also cause damage to our health and the environment.

4.No Soil Compaction

In order to ensure soil fertility, it is essential to have tunnels for an air reflux. Leaving the roots of plants at the end of the cycle and not disturbing the work of microorganisms and small animals makes it possible to create porous tunnels that make the soil softer and prevents the asphyxiation of life underground and the development of an anaerobic environment on the surface.

The soil will area itself if we avoid compacting it. Compaction can be defined as the compression of soil particles into a smaller volume as a result of the reduction of space between the particles. It is usually accompanied by significant changes in the structural properties and behaviour of the soil, as well as its thermal and water regime, balance and the characteristics of its liquid and gaseous phases.

Vegetables, flowers, aromatic, officinal and fruit trees are planted in close succession, creating an environment as varied, rich and productive as possible, suitable to host animals and useful antagonistic insects.

The studied associations in this way make it possible to contain parasitic attacks and to create a dynamic system where plants actively participate in the mutual well-being and become protagonists of the natural fertility of the soil.

It is advisable to cultivate at least three botanical families, especially by maintaining the constant presence of liliaceae (excellent repellents against pests and fungal diseases) and legumes (nitrogen-fixative). Obviously the choice of plants is based on the principles of association and arrangement in space. Increasing biodiversity as much as possible contributes to the development of an ecosystem that regulates itself through numerous and various synergies between living beings.

Creation of a Home Garden

Agriculture is the practice of cultivating the soil in order to obtain products for humans and animal nutrition and raw materials essential for many industries (cotton, flax, oilseeds, etc.). It also includes livestock

farming and forestry. There are three main sides of research in the agricultural sector: the first relates to the physical environment conditions affecting plant and animal production and includes, among other disciplines, agronomy, animal husbandry and forestry. The second concerns the aims of people working in agriculture, studied by rural sociology. The third concerns the actions of operators and State bodies in relation to the above conditions and aims, and is specific to the economy and agricultural policy.

Home Garden is an idea that seems to seduce more and more people. If you aspire to be a city farmer and are trying your hand at growing aromatic herbs and small vegetables in your garden or terrace, there is a new way to grow your seedlings without the use of pesticides and in ultra-reduced spaces.



The vegetable garden will be completely covered with mulch and its soil will have to be well ventilated and rich in humus. The plants are constantly recycled, the leaves are discarded, the green manure plants are turned in the ground to provide nutrients for the summer harvest; some dill, carrot and fennel plants are left to bloom to attract the wasps that feed on parasites and

some tomato and cucumber that comes spontaneously from the compound heap is transplanted along the fence.

There is no attempt to arrange the garden in strictly ordered rows; it looks like an interweaving of bushes, creepers, flowerbeds, flowers, herbs, some small trees (lemon, mandarin) and even a small pond. The paths are sinuous and the flowerbeds can be round, keyhole, raised, spiral or sunken.

It doesn't matter which method you use to prepare the garden, whether it is double spading the flowerbeds or simply mulching them with newspapers and straw. The question is which method satisfies you. For a lazy man, full mulching is suitable. Maybe someone else is suitable for double mulching because they are still young. The technique is not a fixed thing, it is something that adapts to the occasion, age, inclination and conviction.

The important thing is, therefore, to plan the garden according to the frequency of visits and the extent of the harvest and to accommodate a wide choice of plants for greater control of insects. Even when planning a small area such as a vegetable garden we can follow the general permaculture principle of arranging the flowerbeds according to the number of times they are planted.

The steps for the creation of a bedstead according to the method of synergistic agriculture include the design, which is the moment when we take into account the available space and collect data on exposure, climate, winds, orientation, etc., and choose the shape of the beds to be fenced.

The preparation of the flowerbeds consists in preparing the ground, creating piles of others from 20 to 50 centimeters high and 120 centimeters wide on average and 5 to 7 meters long. Between one flowerbed and another there are walkways at least 50 centimeters wide. The next step is the preparation of the raised flowerbeds on which the plants are grown. The shape of the flowerbeds can be straight, curved or mandala shaped and their function is to delimit the human passages and also to avoid compacting the cultivated land. The recommended width for the flowerbeds is 120 cm, while there are no limits to the length. It is advisable to create passageways at least every 4-5 meters with a width of about 80 cm. The height, on the other hand, can reach a maximum of 30-40 cm, because higher heights reduce the flat cultivable surface. The pallets are created with the same soil as the place where the vegetable garden is built and a drip irrigation system should be installed on them.

After having designed the synergistic garden and built the flowerbeds, a drip irrigation system that can guarantee water to the plants even in periods of greatest drought must be installed to complete the set-up.

It is not difficult to structure a system with drip fins that reach all the flowerbeds. If the synergistic garden represents a form of cultivation of the land in harmony with the same and its resources, obviously also the approach to the use of water must be conscious and conscientious. This is why the preferred form of irrigation in synergistic gardens is that obtained through a drip irrigation system, which guarantees optimal use of water, which flows slowly and deeply into the soil, saving the amount of water used. In addition, this system will avoid wetting the leaves, reducing the risk of plants contracting fungi.

A very important and unavoidable element in synergistic agriculture is mulching (covering the flowerbed with organic material) which protects the soil from the strong sun, rain and wind. It also facilitates the development of micro flora and micro fauna, in particular earthworms. Mulching acts as a "thermal buffer", protecting the soil both in the warmer months and during the cold season. Obviously, it must be made with biodegradable materials and, depending on the needs, with straw, mowing lawns, reeds, leaves, untreated sawdust, paper, etc.. The soil in nature is always mulched, i.e. covered. Bare soil, without grass, leaves or other living or decomposing material does not exist naturally. If a soil is completely bare it is not "active", like in the desert or rocky areas. From this simple observation we understand that if we want our edible plants to grow as naturally as possible we have to cover the soil. The cover has the function of protecting the soil and its inhabitants from excessive heat or cold, limits evaporation and therefore maintains humidity for longer, slows down the growth of wild plants as it stops the passage of light necessary for their growth, and avoids compaction of the soil when it rains.

These are the main reasons why mulching is used, a common practice also in intensive production (perhaps made with synthetic materials), but they are not the most important. The surface organic matter nourishes the multiplicity of micro and macro organisms that, combining together, is transformed into nourishment assimilable by plants. In practice it allows the cycle of fertility to take place, without this process the soil would be impoverished to death. The organic matter is also a powerful sponge which, when it rains, soaks up

water and then slowly releases it, allowing it to reach the underground aquifers.

Without this mantle, also made of humus and roots, the water would not be able to filter inside the earth and would slip away quickly dragging behind various elements. The muddy rivers that flow fast towards the sea, sometimes very dangerous for humans, would not exist without the transformations that man has brought to the planet over the millennia, especially with agriculture.

One cannot imagine returning to a primordial phase of the Earth, nor can one hope to do so. But much can be done if we understand some of nature's unavoidable needs: the soil wants to be covered. Therefore, when we look at a beautiful freshly ploughed and sown field in which we do not see a blade of grass, neither alive nor dead, we are not admiring the beginning of a new life cycle, but the certain premise of the destruction of the greatest earthly heritage, the fertile soil suitable for life.

Permanent supports allow the planting of wooden or metal supports or recycled materials to allow climbing plants to develop in height. In the synergistic garden, the use of permanent supports is planned to provide a guide for plants that develop in height.

Season after season our structure will be a support for climbers and in general for all those plants that could otherwise break when raising the stem vertically, due to the wind or the weight of the fruit. In many vegetable gardens we can see an arched structure, made with iron rods. The solution traditionally adopted in synergistic gardens involves the use of arches over the flowerbeds, obtained by bending the iron rods used in construction. The rods generally have a diameter of about ten millimeters and a length of about six meters, are those usually used for reinforced concrete constructions. To build our braces these rods must be folded and shaped so as to take on an arched shape and then arranged in an "X" shape and tied together, reinforcing the points where the arches intersect with a piece of iron wire, which anchors them to each other.

This solution adopted in most synergistic gardens is not among the most effective and recommended. Not only is it particularly complicated to transport these six metre long iron rods, but it is also not too easy to shape them in the right way.

Furthermore, the idea of offering plants an iron rod guide, which tends to get very hot in the sun, could be problematic. Rather, a wooden structure is

preferable which, although more prone to deterioration due to the weather, is a more sustainable and sensible alternative.

Sowing and transplanting is the last step in planting plants. The position that the plant will occupy on the flowerbed is derived from criteria specific to synergistic agriculture, which look at the consociations and the specific needs of the plant in question. The choice of plants to be used is not limited to vegetables but also includes aromatic plants, flowers, spontaneous and medicinal herbs.

The original sin is precisely the monoculture, the absence of variety and diversity, which are the basis of every synergistic garden, where it is essential to ensure the presence on the same beds of plants belonging to different families, never less than four. Each, in fact, will "dialogue" with the soil in a different way, drawing different nutrients from different soil levels thanks to the different root systems and in turn returning different substances.

It is said that in a synergistic garden not only the plants are cultivated, but above all the fertility of the soil, avoiding all those forcing that alter the natural process of self-regeneration. One could add that it is necessary to cultivate in a wider sense a balance, in the soil first of all, but also in the relationships between the different elements of the garden, between the different plants, between plants and the soil, between plants and fauna and microfauna and so on.

Natural Farming Method

The best way to achieve a lush garden or balcony is to combine plants and flowers, even in the same pot, which help each other, grow well and become more beautiful and robust. Obviously, a fertile soil, the sun and some bio-fertilizing substances will be indispensable elements for proper plant growth. It is always important to keep in mind the respect of the principle of subsidiary, reciprocity and solidarity, which applies in all areas, and in a decisive way in the plant world.

In order to achieve a correct biological balance, it is appropriate to give priority to certain plants that help each other in their growth, attract beneficial insects that act as a kind of protection. It is advisable to favor the diffusion of particular herbs that act as repellents to aphids and parasites attacks, to the detriment of those that feed on the same nutrients and hinder each other in growth.

A good plantation is based on natural cultivation, which categorically bans the use of chemical fertilizers and insecticides and promotes the practice of the biological method, with the aim of obtaining an environmentally friendly operation.

Correct Combination of Plants and Soil Types

When preparing to cultivate the land with the synergistic method, it is a good habit to respect and put into practice some basic rules. First of all, you should never plant two plants of the same family close to each other, because two similar species will have the same nutritional requirements and will attract the same pests which could easily infect them. The proximity and distance of particular plants is very important to improve their growth. On the other hand, it takes very little to fail if biologically incompatible plants and vegetables are planted nearby.

A balanced cultivation will never have tomatoes, aubergines and peppers in the same pot because these three vegetables all belong to the same family and would end up providing the nutritional resources for themselves.

Plants belonging to different botanical families, on the other hand, can be paired. They use soil substances differently, so that their proximity allows them to create a more balanced ecosystem to grow healthier and more robust.

The rose is a beautiful flower, but it attracts many insects that can attack it and transmit annoying diseases. An excellent match for the rose plant is to put it in residence with plants that repel insects, such as the nasturtium and garlic plant.

An excellent combination is the combination of hibiscus, basil and yarrow. These plants are synergistic, basil is a natural pesticide that protects hibiscus, while yarrow promotes the production of basil essential oil, making it very fragrant.

Wet soils and shady areas provide the ideal habitat for hydrangeas, impatiens and mint. Mint is another natural pesticide, which perfectly protects these two flowers from complementary colors.

It is advisable to avoid the combination of sage with rosemary. They are two plants which have very bulky roots and which should not be planted close together, because they would end up choking each other. For a matter of soil, azalea and oleander should not be combined, the first plant prefers acidic soils, the second one calcareous ones.

The begonia is a plant which requires little water, to avoid to combine it with the sufunia, which, on the contrary, require a lot of it. Do not combine plants that occupy and exploit the same level of soil (for example potato and onion) but try to combine plants with different root growths. In order to carry out the intercropping it is necessary to arrange the plants in rows whose distance varies in relation to the different species and cultivars adopted, and to their breeding system: sowing or transplanting in rows is in practice the most rational way to proceed; another system of plant arrangement is to place a crop in the central part of the flowerbed (usually the longest cycle) and a second one at the edges (usually aromatic herbs, flowers, or short cycle species).

Slow Vegetables and Fast Vegetables in the Garden

In order to ensure a balanced garden growth, it is important to know that not all plants take the same time to grow. First, there are vegetables such as peas, beans, tomatoes, cabbage that need several months to mature. However, we also have plants such as lettuce, spinach and radishes that can be harvested after 1-2 months. It is therefore interesting to combine slow-growing vegetables with fast-growing vegetables. It will then be possible to harvest the fast-ripening vegetables before the 'slow' ones have grown big enough to take up space.

Legumes have the property of fixing the nitrogen in the air and releasing it into the soil as the root decomposition progresses. For this reason they are an excellent natural fertilizer, especially for leafy vegetables (such as lettuce, cabbage, cauliflower, spinach) and they are also very useful in rotation, i.e. as a crop that precedes the others on the same plot.

Synergistic and Antithetical Plants

It is not advisable to combine cucumbers, zucchini and pumpkins (Cucurbitaceae). Or aubergines, potatoes, peppers, tomatoes and potatoes (Solanaceae). However, a detailed list will make it easier for those who want to try their hand at the companion-gardening method of agriculture.

Asparagus

Let's start with something easy, asparagus. They agree with almost everyone, but let's say that their growth is particularly flourishing if they are combined with the cultivation of basil and parsley. However, asparagus does

not have plants that are incompatible with their development.

Carrots

The carrot is comfortable with lettuce, rosemary, onion, tomato and sage. However, it is advisable to keep it away from dill, even though herbs are normally considered a healthy touch for other plants.

Cucumbers

Cucumbers become particularly luxuriant when placed next to peas, corn and beans. It is absolutely forbidden to plant them next to all aromatic herbs and potatoes.

Onions

Onions grow well near carrots, lettuce and chard, but suffer from the proximity of bean and pea plants.

Cruciferous

They include the whole cabbage family, i.e. broccoli, Brussels sprouts, cabbage and cauliflower. You can plant them next to chard, cucumber, lettuce, onion, spinach and potatoes. But forget about growing them next to strawberries, green beans, dill and tomatoes. Yes to radishes and cabbage: together they keep the caterpillars away.

Green Beans

They grow very well and in tune with potatoes, strawberries, celery, cucumber and corn, they are to be avoided in combination with onions and beets.

Lettuce

Lettuce is a pretty friendly vegetable. There are no negative indications for combinations, and it grows very well near strawberries and cucumbers.

Corn

Corn is a little more selective. Maybe it grows well near pumpkins, peas, cucumbers and potatoes. It is definitely not advisable to grow it next to tomatoes.

Potatoes

Potatoes look good next to the beans, corn and vegetables of the crucifer family. To avoid near pumpkins, tomatoes and cucumbers. Horseradish is the most favourable plant for growing potatoes: you will protect them from

the dorifora, the main parasite that attacks them mercilessly.

Peas

Peas grow well next to carrots, turnips, corn and beans. Never plant them near onions and potatoes, otherwise the harvest will be disappointing.

Tomatoes

If you plant tomatoes next to asparagus, onions, parsley and cucumbers, you are a good professional, if you aspire to become a specialist farmer, then plant basil nearby to keep the parasite larvae away.

Celery

Celery is the most tolerant plant compared to all other vegetables and prefers to live with all types of cabbage, onions, tomatoes and green beans.

Herbs

There are many plants against unwanted insects, which can help us to protect our garden and our home from aphids, flies and mosquitoes and other unwelcome 'guests' in a natural way. They act as real natural repellents that keep flies, wasps, horseflies, mosquitoes, aphids, moth and gnat, small animals that invade our homes, gardens and gardens during the summer. Besides effectively repelling insects, these plants are also decorative, some of them even edible, and will avoid you to resort to expensive chemical methods which are not safe for your health.

Borage

Beautiful and good is able to give beautiful blue-violet blooms in the shape of a star, to decorate the interior of the kitchen. It is rich in precious active principles beneficial for health, the borage grown near a rose plant will protect it from the attack of the feared parasites, enemies especially of tomato plants.

Clover

The cultivation of clover both the classic and the red-flowered variety will keep the aphids away from the flowers and protect them throughout the summer.

Chamomile

Traditionally used for its relaxing properties, chamomile is also an excellent natural anti-parasite. Grown close to leeks, in particular, it keeps the dreaded 'leek moth' away.

Petunia

It is a plant with colourful flowers and is very effective in protecting potatoes from the dorifora, the most dangerous pest for tubers. Grow it on the edge of the crop and protect your garden with a touch of colour.

Marigold

Marigold releases into the soil a substance toxic to nematodes, parasites that attack the roots of plants until they are destroyed. Grow it in flowerbeds or wherever you need it. Thanks to its orange and yellow flowers the aesthetic effect will be appreciable.

Lavender

Easy to grow in pots or in the garden, lavender lends itself to a variety of uses and given its marked healing properties it is also an excellent ally of our beauty and health. As a repellent plant, it acts effectively against flies and mosquitoes that do not like the intense scent of flowers and leaves.

Geranium

Very decorative and ubiquitous on sunny balconies and windowsills, among insect repellent plants the geranium is perhaps the most bitter enemy of mosquitoes, so effective that it can effectively replace the most used chemical methods, such as electric stoves and candles.

Marigold

Grown in the vegetable garden or garden, between one groove and another, marigold is a very effective natural repellent for aphids, mosquitoes and other pests.

Nasturtium

It's another powerful plant repellent that helps keep flies and mosquitoes away. In addition, it gives beautifully colored blooms and deep green foliage.

Citronella

It is the basic ingredient of most commercially available anti-mosquito formulations, yet few people grow lemongrass directly in the garden or on the balcony to solve the root problem. It is easily found in nurseries and specialized centers where it is sold in small seedlings ready to be buried in pots or directly in the ground.

Catnip

This acts 10 times more effectively than chemical repellents. As a plant,

catnip requires very little care but its location should be carefully evaluated as exposure to drafts would disperse the odor and thus reduce its effectiveness.

Roman Absinthe

It is one of the few insect repellent plants such as wasps and hornets. Planting it in pots or on crop edges provides a natural barrier against the invasion of these dreaded insects.

Garlic

If it is grown near raspberries and roses it is a natural pesticide.

Basil

Its smell is particularly unpleasant to flies and mosquitoes. A plant on every window in the house is enough and for the hated mosquitoes it will be the end. For the cultivation of tomatoes it is a real panacea, besides being a natural repellent against flies and mosquitoes.

Chives

It's very good for carrots and helps them grow better.

Wild Fennel

It is a plant that does not get along very well with other crops, it is preferable to keep it away from other plants.

Marjoram

A real panacea for all the plants in the garden: it improves their scent.

Mint

It is very good for tomatoes and cabbage, improves growth and smell.

Melissa

Lemon balm is also very good for tomatoes and their taste.

Rosemary

Perfect if next to cabbage, beans, sage and carrots. Keeps away the cabbage and the fly that bothers the carrots.

Sage

It goes well with carrots and cabbage, but not cucumbers.

Thyme

Even thyme helps keep the guinea pig away.

In short, nature has its rules, as you have seen, and we can only respect

them if we want to enjoy the fruits of its land. Today we have discovered that in the garden there are precise rules and that every vegetable, with its needs and characteristics, has some friends, but also some enemies.

THE NUTRITIONAL PROPERTIES OF MICROGREENS

icrogreens, as it can be seen from the name itself, are miniature vegetables, as they are picked up very quickly, even before having developed completely, as soon as the stage immediately following the sprouts and the one immediately preceding the adult phase is reached. **M**The choice is not at all casual because, in this intermediate phase, we have the highest concentration of nutrients.



These are the last agro-food innovations, not yet fully known, which lead to a revolution and an investment in agriculture. In recent years, in fact, there has been a growing demand from consumers, who have become aware of the countless nutritional properties of these products. Actually, microgreens have been known for a long time (about twenty years) and used in North America

and North Europe, as real super-food, together with the most famous sprouts.

The micro vegetables, if cultivated in a professional way, are cultivated in protected environments, such as greenhouses, or in the open air with special procedures, without the aid of chemical products, fertilizers or parasites, as the parasites themselves do not even attack the plants in time.

They are born precisely in the United States, because one of the many qualities of these elements is the aesthetic aspect that has made them attractive even to great chefs, to give a touch of elegance to gourmet dishes in the most refined restaurants.

Although they are often used to perform an aesthetic function of decorating dishes, the microgreens also have an excellent nutritional profile, to the point of being considered as real superfood.



Recent studies have shown that microgreens have a content of minerals (especially potassium and calcium), vitamins (especially C, E and K), as well as antioxidants, in much higher amounts than the corresponding plants and vegetables. Thanks to this, the use of microgreens as well as an aesthetic opportunity offers the possibility to act as a natural supplement of substances necessary for our well-being.

A recent study, conducted by a group of researchers from the University of Maryland published in the Journal of Agricultural and Food Chemistry, analyzed the content of vitamins (vit. C, vit. E avoid. K) and carotenoids (β -carotene, lutein and zeaxanthin) of twenty-five species of microgreens.

The study showed that compared to conventional vegetables, harvested at standard commercial maturity, the micro-ages have a higher content of vitamins and bioactive substances (Xiao et al., 2012). Among the 25 vegetables examined, red cabbage, coriander and amaranth contained the highest amount of ascorbic acid, carotenoids and vitamin K. However, some details need to be considered in order to get a comprehensive picture of the goodness that microgreen nutrition produces on our metabolism.

The first is that, when we talk about microgreens, we cannot generalize, and it is appropriate to analyze some particular types that not all microgreens contain more nutrients than the respective adult plant. In fact, the adult rocket contains more vitamin C (110 mg) than the respective micro-organism which contains 45.8 mg/100 g.

It should also be taken into account that the amount of micro-foods added to a dish is unlikely to reach the required dose of the recommended requirement of the vitamins taken into consideration, since they are microgreen foods. Finally, another aspect to consider is that to date no information is available on the fibre content of the micro-foods. However, it is well known that adult plants exert numerous beneficial effects on our health, promote intestinal well-being, slow down and partly reduce the absorption of sugars and fats, helping us to stay in shape.

A Real Food and Gastronomic Revolution in Favour of All Palates

Microgreens are growing vegetables that provide the consumer with a healthy concentrate in their body. Initially they were imported with long and delicate transport processes in order to keep their nutritive processes active, but as a result of various complaints and proposals, some startups were also born everywhere that have worked hard to spread this type of cultivation like wildfire. The feedback is without doubt excellent and not only because it is the novelty of the moment, but because their positive aspects are visible to all eyes.

Also from the economic point of view we speak of innovation, precisely because to take care of these seedlings you will need nothing but a plastic

container, water, light and a common LED lamp, in case you decide to produce in a professional way.

More and more supermarkets are gradually starting to offer "super food" among their departments, which boast a very high content of bio-active substances and vitamins. The seedlings are displayed inside the "grow unit", i.e. the cabinet display cabinet, and are normally available in the most demanding varieties such as mustard, leek, red cabbage, daikon radish, red radish, watercress and rocket.

The projects so far are promising, as the consumption of microgreens is growing and research data shows that more and more super food is being used. It is the kind of cultivation that seems to be all the rage to impress, fill and indulge more and more people's tastes, especially among women, who are increasingly looking for healthy eating habits and to ignite a glimmer of hope in the hearts of people hoping for a better world from the point of view of food.



Microgreens in Diet. Ideal for Vegetarians and Vegans

In some cases, it is advisable to replace microgreens in your diet with

normal vegetables, because a few grams of their consumption fully meet your daily requirement, as in the case of micro red cabbage, of which only 41 grams are enough to have the recommended daily dose of vitamin C, or 15 grams of micro radish to reach the recommended daily dose of vitamin E . In addition, it should be borne in mind that compared to conventional vegetables often used cooked, raw consumption of micro-crabs has the advantage of avoiding loss of nutrients or degradation of thermo labile vitamins.

In addition to the high content of vitamins and antioxidant compounds, the micro-gifts can provide a good intake of mineral elements. From an analysis conducted on the content however, like other leafy vegetables, the micro-agents can also be characterized by a high content of nitrates, which are considered anti-nutritional factors. On the contrary, the sodium content seems to be generally very low, so micro vegetables can be considered low sodium foods.

On the other hand, the content of mineral elements in the micro-gifts is strongly determined by the availability of the micro-gifts in the culture medium and/or applied nutrient solution. Therefore, it is possible to obtain products characterised by high values of essential macro and micro-elements, or low content of undesirable elements such as nitrates and sodium, by changing the composition and management of the nutrient solution or growing medium.

Due to their peculiarities, microgreens represent a rich food source also for particular categories of consumers, such as vegetarians and vegans, who can diversify and enrich their diet by using the many species of microgreens available or crudists, since microgreens are generally consumed raw, it seems that they are destined to become the food of the future. Despite their small size, they are highly versatile in the kitchen, as they can be associated with any dish and are even easier to use than traditional ones.

Thanks to their bright colors, they lend themselves to delicious dishes and in the decoration of a wide variety of dishes, from meat to fish, from first to second courses, from a simple sandwich or salad, to a soup or a rich aperitif.

There are also those who decide to dare more and use them in excellent drinks and even in desserts. Beyond this, they are also suitable for many preparations, in the pan, they can become crispy or smoothies, they can be used to make sauces, with an appetizing taste, to be spread in cheese or croutons.

Not to be overlooked, micro vegetables are always available and cultivable, in any season. They ensure absolute freshness, because they are picked and used at the moment. In fact it is not recommended to cook them and therefore it is preferable to eat them raw, to enjoy a more intense taste. Moreover, they do not contain any kind of waste. Clearly, the consumption of these vegetables is in perfect harmony, not only for those who adopt a genuine eating style, but also for those who practice a vegetarian, vegan or crudest diet, as it allows them to enrich their diet.

They are also prescribed and promoted with full marks in low-calorie diets, whose aim is to lose the extra kilos, as they contain very few calories and it is enough to consume a few grams to satisfy the daily needs of an individual. Sprouts can help digestion thanks to the content of available fiber, which increases after germination.

It has been shown in various studies that the germination process increases the amount of insoluble fibres, which are the type of fibres that help prevent constipation. This increases even greater than 200%.

In addition, germination reduces the amount of gluten present, making them more digestible, especially for people with celiac disease. Including sprouts in the diet could also be good for the heart. This is because taking sprouts helps to reduce LDL cholesterol, one of the factors contributing to heart disease, while increasing HDL cholesterol.

In one study, 39 overweight and obese people with type 2 diabetes were divided into two groups. 60 grams of sprouted lentils per day were given to one group for a period of 8 weeks. At the end of the study, the group that had eaten the sprouts had 12% more good HDL cholesterol and 75-84% less triglycerides and LDL cholesterol than the control group.

Growing Microgreens at Home

Microgreens are grown outdoors in open ground or indoors, with lighting support for indoor plant growth. They are therefore plants harvested at a more advanced stage of growth than the bud.

Microgreens are much better than classic vegetables for a number of reasons, including color, texture, flavor and, above all, we can easily decide to grow them at home, even if we have little space and little time to grow them. The growth varies from one to three weeks.

If you do not have a suitable closed environment (ventilated and at a

constant temperature and humidity) you can use the grow boxes that are on the market, some very small and versatile, which can be placed on a table in a corner of the kitchen.

It is possible to find them mainly in organic markets, from some specialized private suppliers or more rarely, instead, they can be found in the counters of supermarkets. Even if, lately, given the sudden expansion of the phenomenon, the demand from customers is gradually growing with a consequent increase in supply.

For this reason, many people decide to grow them in their own homes to have them always available, as it is a very simple process to carry out, even for those who do not have specific skills in cultivation practices.



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We are facing a real novelty in cultivation, which until recently, seemed simple utopia, but which is beginning to spread more and more.

The microgreens pers, its intrinsic qualities, require little space for cultivation and are rich in vitamins and antioxidants. This means that you can optimize production, reduce the costs usually required by large crops and

consider the possibility of producing them in a very simple way, without the contribution of fertilizers and pesticides, even in very small spaces, such as a terrace, balcony or window sill.

The aim is to guarantee healthy and genuine products, through an early harvesting of the same. With this method, everyone can choose to consume only what they grow. We are not dealing with GMOs, let's be clear, because everything we find in front of us is the result of research on traditional varieties of cabbage, pumpkins, green beans, spinach, broccoli and much more. They are considered the recommended microgreens because they are easy to grow even in urban environments, using the system of vertical farms or indoor cultivation inside grow boxes with the help of LED lights.



Cultivation Pays Attention to the Seeds

Given the delicacy of the seedlings, their growth must take place in a controlled environment, inside containers, in gutters, pallets or on floating panels. For lovers of indoor farming, it is also possible to grow micro-arches inside closed structures, controlling temperature and humidity and providing light through LED lamps.

Maximum attention must be paid in the choice of seeds that must have a certified quality to ensure a high and uniform germination in addition to plant health. The seeds must not be tanned at all, to avoid residues in the product sold, and have a high purity. It is necessary to be sure of the absence of

inedible weeds in the finished product.



In order to reduce the risk of phytopathologies developing in the crop, it is good practice, especially for seeds with a corrugated tegument, to clean with chemical treatments, e.g. sodium or calcium hypochlorite, hydrogen peroxide, ethanol, malic acid or lactic acid at different concentrations. Or by physical treatments: using heat, high pressure or radiation.

Once cleaned, the seeds must be subjected to processes that speed up germination. Depending on the type of seed you can then proceed with different pre-germination treatments, such as cold priming, soaking, osmopriming, matrixpriming and hydropriming.

These practices have in common the objective of satisfying the needs of the seed in terms of water, nutrition, light and oxygen before the rootlet is released. Through these treatments the seeds are put in the ideal conditions to start with a homogeneous and vigorous germination once they are inserted in the environment that is favorable to them.

There is no unambiguous rule for the balanced density of seeding to obtain the micro-rowings. For smaller seeds, such as chicory, cauliflower or broccoli, up to four per square centimetre can be planted. For larger ones,

such as chickpea, corn or sunflower, you can plant only one seed.

For each species you have to find the right balance between low and high density. The former leaves more room for growth, but can be uneconomic. The second leads to higher production but pushes the seedlings to grow mainly in height. In these conditions the product not only has a lower unit weight, but can develop rottenness more easily.

Varieties of Micro Vegetables to Grow

Among the most common and most used species of vegetables for the production of microgreens are the brassicaceae or called Crocifere. They include many types of cabbage, rocket, mustard, radish and many others. The steraceae also called com-composite, lettuce, escarole, chicory, radicchio. Apiaceae which include celery, carrot and fennel. Amaranthaceae include spinach and chard. Cucurbitaceae such as pumpkin, melon and cucumber and legumes, such as beans, string beans, broad beans, peas and lentils, i.e. all those plants better known as legumes. To specify that they are also fundamental for our health, in fact, a diet rich in legumes is an excellent starting point for a healthy and balanced diet.

Basil, cumin, coriander and chives belong to the category of aromatic herbs and should always, or almost always, accompany our dishes, because in addition to giving them an extra note of flavour, they are a real touch of class for a light but tasty cuisine. All you need to do is to find out about the beneficial properties of each vegetable and choose which one could best satisfy your needs and requirements. Even more than the vegetables that normally end up on our tables and harvested in our gardens, it has been scientifically proven the beneficial contribution of these micro vegetables to our body, making them a frequent consumption.

What you Need to Grow Microgreens

For indoor cultivation of microgreens, plastic containers such as trays should be used. The dimensions are freely selectable, but it is advisable never to exceed 5cm in height. In this way the roots of the young plants will find water easily and the seedlings will be exposed to light in an appropriate way. The bottoms of the containers must be perforated in order to avoid water stagnation, which can compromise the quality of the micro-roughs. To give light to microgreens it is strongly recommended to use LED lamps as they do

not produce heat, have an optimized spectrum to stimulate chlorophyll synthesis and consume less energy than HPS or CFL lamps.

To start it is good to wash the seeds under running water and start what is called the pre-treatment phase. Then, immerse the seeds in water so as to induce germination, for a time that varies depending on the type of seeds. At this point take your container, which you must fill leaving 1cm away from the edge, and proceed with sowing.

The seeds should be evenly distributed on the surface. It is good to place them with a density of 1/4 seeds per cm². With a sprayer you have to moisten them immediately in order to guarantee water for 2-3 days. At this point cover the container with a film (e.g. kitchen film) and leave them in the dark for 2-3 days. In this way you stimulate the germination, which must take place at a temperature between 20-24°, which becomes 16-18° during the growth phase.

The microgreens, after the germination in the dark, in order to grow well, must be placed under the lamp to receive the light which must be from 12 to 14 hours of light per day. For a greater saving we suggest you to use LED lamps for cultivation. In fact, brand new LEDs can emit a light very similar to that of the sun, with all the colors necessary for the development of the plant, including infrared and ultraviolet.

During the germination it is advisable to use the nebulizers, when the seedlings will have emerged from the ground, it is good to irrigate from below, then acting on the substratum. It becomes therefore useful not to wet the young shoots or the leaves, but to keep the soil always humid.

The micro-soils need a mixed soil, which is so rich in nutrients and has a good capacity of water retention. To make it easier to choose, it is good to say that a good soil must have more than 85% water-retaining characteristics, valid both for water retention and a high level of root system aeration.

Collection Phase

The cycle of cultivation of the micro-agents varies according to the chosen species, but generally it can last from 5 to 21 days, after the germination which varies from 2 to 5 days.

When the first real leaves sprout, it is possible to proceed with the harvest. You can harvest your vegetables manually, cutting the seedlings a few millimetres from the surface. You can then either store your micro-orages for

a week or 2 weeks, or cut them to be eaten immediately, in principle following the advice according to the species below:

- Micro-aglio: Harvested at a height of about 4cm, it tastes similar to garlic, but more delicate. It is easier to digest, thanks to the presence of live chlorophyll, which acts as a natural breath freshener.

- Micro-basil: Harvested at a height of about 6cm, it is very fragrant and has a slightly spicy taste. More digestive than the adult species, it is a precious source of vitamins.

- Micro-beet: Harvested at a height of 5-6cm, it has a neutral taste, reminiscent of field beets, but with a higher vitamin content. For this reason, and for its reconstitutive properties, it is indicated for those who suffer from anaemia.

- Micro-cabbage: harvested at a height of about 5cm, there are several varieties in micro format: red cabbage, pink cabbage or broccoli, each one with a different taste. All of them are very rich in nutrients, especially in sulphurous substances, which have a strong chemo-protective action on the cells.

- Micro sunflower: Ready to harvest at a height of about 2-3cm, they have a sweetish taste, similar to sunflower seeds and are usually eaten in salads or pasta. They are a precious source of phosphorus, calcium, potassium, magnesium and contain a lot of protein (30%) and a lot of vitamin D, difficult to find in vegetables.

- Micro-peas: To be harvested at a height of 3cm, they taste similar to peas, sweet and creamy, but richer in protein, carbohydrates, calcium, iron, phosphorus and potassium and vitamins A and C.

- Micro radish: Harvested at a height of 5-6cm, it tastes more intense and spicy than adult radish. Its properties are countless: it has an antiseptic action and stimulates digestion, improving the immune system.

How to Grow Micro Vegetables

Micro vegetables are not all the same between them, each one has well defined characteristics, in fact, they differ from each other already starting from the way of cultivation and, above all, of germination.

Their cultivation differs from that of the sprouts (even though the seeds are the same), even if they appear apparently very similar and for this reason,

erroneously, they are often confused among them. The cultivation of the first ones, is shorter, happens initially with water and then in a dark environment for a few days. Here are the few and simple steps to cultivate the micro vegetables at home, and why not, in the office.

First of all, you will need a mixed soil, rich in nutrients and with water retention capacity. Seeds can be grown in potting soil, coconut wool, peat and even cotton wool, but when planting, the substrate must not be too soaked, as otherwise the water could "choke" the root even before allowing the bud to sprout. In addition, excessive humidity may cause fungi, mould and other pathogens to develop. Before each watering it is advisable to wait for the substratum to be a little drier.

The bottom of the containers should be perforated to avoid water stagnation, which could compromise the quality of the final products. To store the seeds will be used plastic trays, with variable dimensions, which must not exceed a certain height, to allow the plants to reach the water easily and to receive the necessary light from the fourth day on. As far as the lighting is concerned, it is possible to choose whether to opt for natural light, or artificial light, through specific LED lamps, which have the characteristic not to produce heat but to favour the process of chlorophyll photosynthesis.

The seeds chosen can be those specific for the cultivation of micro vegetables or organic seeds. The important thing, to avoid any type of contamination, is that they must be washed before being used to eliminate any impurities.

Carrying out these simple procedures, you will be in the middle of the operation, i.e. the activation phase, which consists of immersing the seeds in water to start germination.

You will continue, filling the container with soil, leaving about one centimetre of space from the upper edge. Then, distribute the seeds evenly, moistening them, to leave them a reserve of water, which will have to be sufficient for about two days. At this point, you will cover the whole with food film, leaving the seeds to rest, in absence of light, for a couple of days and at room temperature (and in any case around 20 degrees).

Once the "dark phase" is over, it will be time to light the shoots, with the help of LED lamps for a period of time ranging from fourteen to eighteen hours, depending on the variety. At the appearance of the first real leaves, called "cotyledonary small leaves", will have come the long awaited moment

of the harvest, which may happen from the seventh to the twenty-first day.

From Starred Restaurants to Our Homes

Microgreens can be associated with any dish, however, to get all the nutritional benefits it is important to eat them raw. It is preferable to eat them in rotation, if possible, all of them. Depending on the season, it is advisable to prefer them during the hottest period alternating the arugula with the pea, respectively for their magnesium and potassium content. Due also to greater exposure to the sun's rays, our table should never miss foods rich in vitamin C and E for their antioxidant action and especially for their protective effect on the skin. Especially recommended are red ear amaranth, red cabbage, radish and coriander.

Microgreens, in short, are vegetables in the growth phase that guarantee the consumer a concentrate of health in their body. Initially they were imported with long and delicate transport processes in order to keep their nutritive processes active, but following various complaints and proposals, some startups were also born and have worked hard to spread this type of cultivation like wildfire.

The feedback is without doubt excellent and not only because it is the novelty of the moment, but because their positive aspects are visible to all eyes. It is a real food and gastronomic revolution in favour of all tastes.

Also from the economic point of view we speak of innovation, precisely because to take care of these seedlings you will need nothing more than a plastic container, water, light and a common LED lamp, in case you decide to produce in a professional way.

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There are also those who decide to dare more and use them in excellent drinks and even in desserts. In addition to this, they are also suitable for many preparations: in the pan, they can become crispy or smoothies, they can be used to make sauces, with an appetizing taste, to be spread in cheese or croutons.

Not to be overlooked: micro vegetables are always available (and can be grown), in any season.

One of the many peculiarities that characterizes the cultivation of a micro vegetable is to be within everyone's reach. They are not yet widespread, since they have only been present for a few years, so it is not always easy to find them.

Micro vegetables can be grown in soil or in hydroponics. They are a kind of super sprouts as in most cases they are harvested before the real leaves come out. In this case the seedlings do not absorb much from the soil but it is always worth paying attention to the type of substrate on which our superfood will grow.

If you have a vegetable garden or a garden and you do not use pesticides and chemical fertilizers you already have the soil available, but it probably contains a large amount of weed seeds.

I would now like to explain various techniques of growing and fertilizing the soil. This is general info, which can be used to grow micro greens but also other types of plants and vegetables.

Fertilizing Soil Garden

Taking care of the vegetable garden and the garden is not always easy, especially for those who try and try again, but it really does not succeed in getting even a small plant to come out from the pot.

Even those with a green thumb know that sometimes some vegetables are more difficult than others and some plants require a lot of attention to make them grow at their best. Proper fertilization is very important to improve the soil in the garden and strengthen the plant.

Fertilization is an agricultural technique that involves the addition of fertilizers in order to increase the soil's supply of one or more nutrients to the mineral nutrition of agricultural plants. Its aim is to modify part of the chemical properties of the soil, in this case the chemical composition, to meet the nutrient requirements of crops.

Fertilization is different from soil conditioner because the improvement of physical properties is beyond the scope of fertilization and also beyond correction because fertilization is not intended to change the pH.

Different fertilizers have a soil conditioner or corrective effect, so there may be cases where fertilization is a secondary soil conditioner or corrective, depending on the amount of fertilizer applied.

Organic fertilization generally incorporates significant amounts of fertilizer, approximately tens or hundreds of quintals per hectare, so the considerable amount of organic matter is reflected in the soil structure after humification.

Mineral fertilization can only have a soil conditioner effect when chemical fertilizers with low calcium content are applied to acidic soils that are low in organic matter. In these soils, in fact, the structural state is strongly determined by mineral colloids with a low percentage of basic saturation. Calcium therefore has a positive effect in improving the compost.

On the other hand, the reduced quantities of fertilizers administered with mineral fertilization, almost always less than 10 units of q/ha, means that the soil conditioner effect of mineral fertilization is always mild and temporary.

The corrective effect of mineral fertilization is quite limited and is achieved through the use of constitutionally or physiologically non-neutral fertilizers. Constitutionally acidic or basic fertilizers are those composed of salts subject to saline hydrolysis, those that produce an anionic or cationic residue as a result of differential biological absorption.

In any case, due to the high buffering power of the soil and the modest quantities of materials incorporated with mineral fertilization, the corrective effect of fertilization is very soft and not very long-lasting. From what has been said above, the distinction between fertilisation, soil amendment and correction would seem rather blurred, in fact it is the context that clearly outlines the type of intervention.

However, the decisive aim of fertilization is to provide the plants with the nutrients they need to grow, which come from three main substances: nitrogen, phosphorus and potassium. There are, then, multiple microelements which are in any case fundamental for the development of the plant, among them for example calcium, iron and zinc.

All of these elements are already found in nature and are present in different quantities in each soil and risk shrinking year after year, depleting the soil more and more. For this reason the farmer has to intervene with fertilization, providing the useful substances. The more the soil is exploited by plants, the more fertilizer is needed. There are crops that require more fertilizer and others that are less demanding.

Many fertilizers are derived from animal manure, pollen, guano and

pelleted manure. Earthworm humus also belongs to the category, although it is derived both from manure and vegetable waste. Then there are the cornunghia, blood meal, bone meal that always come from animals, albeit in a more macabre way.

Other fertilizers are of vegetable origin. The organic vegetable matter once decomposed becomes excellent fertilizer: ground lupins, compost, wood ash, coffee grounds and wood chips. Also the pomace, that is the waste of milling olives to make oil, is a good vegetable fertilizer.

A particular way to enrich the soil for cultivation is the technique of green manure, often used in organic farming. Instead of providing substance with a traditional fertilization it is necessary to prepare a preliminary cultivation. The green manure crop is sown not to be harvested but to be milled into the soil, incorporating it so that it provides organic matter and nutrients. Green manure is not just a fertilizing technique, it can bring multiple benefits, such as removing nematodes, moving compact soil, keeping weeds under control. There are many plants that can be used as green manure, with different effects. The varieties used and suitable for green manure are mainly the leguminous plants that provide nitrogen, but also the cruciferous ones that are suitable to produce a considerable plant mass in a short time and the grasses that mixed with leguminous plants provide considerable advantages.

Crop Rotation

The fertility of the soil can be maintained even with a correct crop rotation. Each vegetable takes some substances and releases others, you can save on fertilizer if you use criteria in the interval between crops. For example, crops such as legumes leave the soil enriched with nitrogen, which is very useful for all other horticultural crops.

Crop rotation is an ancient agricultural technique, already in use during the Middle Ages. In order to maintain the fertility of the soil you cultivate and prevent the spread of plant diseases, it is essential to carry out a crop rotation, avoiding always keeping a vegetable in the same plot of land.

Vegetable rotation is even more important in an organic vegetable garden where pesticides and chemical fertilizers are not used.

Rotation Offers Several Advantages.

It makes the soil more fertile. Each plant has its own specific need for

nutrients that it obtains from the soil, other substances are released by the plant during its life cycle. A good rotation allows you to keep a balance of the elements of the soil, improving the harvest for quality and quantity, and saving in fertilization.

It fights pests. Growing a vegetable also means attracting its predators, which found a favorable environment for proliferate and reproduce. For this reason, moving cultivation avoids a massive spread of hostile insects and avoids the use of pesticides.

It reduces lemalactia. The diseases of horticultural plants are mainly caused by fungi (spores) or viruses, which remain in the soil. If we grow the same type of plant from year to year it is more likely that fungal diseases and virosis will spread, which can seriously damage the cultivation.

To achieve an optimal result it would be good to plan at least 4 years of cultivation cycles, even if it is demanding. The ideal thing for proper crop rotation is to make a note of each cultivation. The longer you keep track of previous crops, going back a few years, the better the results will be.

If you don't want to plan a long-term rotation you should at least take into account what you have grown the previous year, avoiding repeating the same vegetable on the same plot and possibly avoiding vegetables from the same family. This alone can prevent a lot of plant diseases, then with a little effort you can do better.

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The rotation can be done per family. Vegetables are divided into families (see classification), usually plants of the same family remove similar substances from the soil, and are also often subject to common diseases or enemies. For this reason an excellent criterion for the rotation of vegetables is to avoid the succession of cultivations of the same type. So for example, do not put tomatoes after potatoes or peppers, or pumpkin after cucumber, watermelon or zucchini.

The rotation by type of crop is an alternative criterion to that of the family is related to the type of vegetable (we can divide vegetables from leaf, root, flower, fruit). In this way we take different parts of the plant and indicatively consume different resources with regard to the elements present in the soil.

Leguminous plants (i.e. broad beans, peas, beans, green beans, chickpeas) are very useful to the vegetable garden because they have the ability to fix the nitrogen in the air in the soil and therefore enrich the garden with one of the main nutrients. For this reason, they are crops that must not be lacking in the rotation cycle.

In addition to crop rotation, the right vegetable associations are also useful to pursue the same objectives: pest reduction, prevention of diseases and soil fertility. The two techniques are integrated and compensated in an organic vegetable garden.

A good cultivation cycle could start with a leguminous plant (for example peas or beans), to enrich the soil, then inserting a demanding plant that exploits its fertility (such as peppers or zucchini), can follow a couple of cycles of undemanding vegetables, such as lettuce, onion or carrots. At this point you start again with a legume.

A period of rest from cultivation can be good for the soil, even if the

rotation cycle is well balanced. The resting space is not necessarily land that cannot be used: you can think of it as a relaxation area where you can put the barbecue and a table, as a play area if you have children, or you can think of using the resting space for a small henhouse.

The Garden without Fertilizers.

Synergic agriculture is a technique of permaculture, it is based on the concept that the plants themselves are a source of wealth for the soil. The action of their roots, the substances they release, the leaves and falling branches, are key elements that determine fertility. For this reason, synergistic gardeners avoid working the soil and using any kind of fertilizer. Synergistic agriculture exploits crop associations and crop rotations to create the right conditions in the ecosystem, with the idea of leaving as much as possible to nature.

Fertilizers and preparations from biodynamic agriculture. Biodynamic agriculture has a special knowledge of composting and soil fertility, using special preparations such as cornosilica, horn manure and fladen. Biodynamics is a complex discipline, not a simple way of composting. For this reason I only mention it, if you are interested I recommend reading a specific text (for example, Pierre Mason's manual).

Microorganisms, mycorrhizae, fermented and zeolite. There are alternative natural fertilization techniques, which are not part of the classical western agricultural experience but are very interesting. For example zeolites, particular types of rocks capable of retaining water and nutrients, mycorrhizae, spores that enter into symbiosis with the root system of plants, and bokashi, fermented organic material that, thanks to anaerobic microorganisms, provides the plant with nutrients.



Not only nutrients. By using organic fertilizers such as manure, compost or earthworm humus, you don't just provide useful elements to the plants, you fine the soil by improving its structure. The organic matter incorporated into the soil makes it softer to work with and improves its ability to retain water, reducing the need for irrigation.

A list. Here are the main types of organic fertilizer available for the organic vegetable garden:

Bovine or Equine Manure

Manure is the most traditional fertilizer in agriculture, used for thousands of years to make the soil more fertile and still today to improve and ameliorate the soil of the organic vegetable garden.

As everyone knows, manure is composed of the excrements of farmed animals, usually cattle and horses, which are collected together with litter (straw or sawdust) and left to mature. Since it is a waste for those who breed it is a material available at low cost, but very valuable from the point of view of nutrients.

The best manure for the vegetable garden is horse manure, which can be found fresh simply by asking the stables in your area, even bovine manure is still an excellent fertilizer. The doses of manure to be used depend on many factors: characteristics and land use, cultivation requirements, type of manure available. In order to prepare the soil of the garden well, I recommend an average of 3 or 4 kg per square meter per year.

Compost

Among the fertilizers that can be used for the organic vegetable garden, the most economical and ecological is undoubtedly compost, which allows you to reuse the vegetable waste from both the garden itself and the house, after having subjected it to a process of decomposition.

The organic substance that this material can bring is precious for soil amendment, in addition to nourishing the plants it makes the soil softer to work and more able to retain moisture.

Pellet Manure

This is an organic fertilizer that is obtained from manure from barn animals (as the name indicates), so we talk about cows and in general cattle, horses, occasionally also sheep and goats. The manure is fumified, a process that makes it ready to be used as manure, then dried.

Being dry and pelleted it is a very useful product for the organic vegetable garden, especially if you are in town and it is difficult to find the manure, also excellent to use in the garden in pots on the balcony.

Sansa

Like any good gardener, discover the tricks for the garden, little unknown gestures that can give you a great help.

With these tricks you can really make a difference in your garden: did you already know them?

The importance of drainage. As you well know, drainage is really important for optimal plant growth in pots, because it prevents water stagnation that may form after watering. For good drainage you can add small pieces or polystyrene peanuts from the packs to the bottom of the pot.

A natural fertilizer rich in magnesium. Epsom salt (also called English salt) is an excellent fertilizer because it is rich in magnesium. This substance is very useful to promote chlorophyll synthesis, and unfortunately most

industrial fertilizers are without it. Epsom salts, or English salts, owe their name to their city of origin, in England. These salts are administered for their strongly purgative action and, at lower dosages, as laxatives.

Epsom salts are also used as a remedy for the beauty of skin and hair and provide an aid in vegetable and garden care.

Keep dirt out of the drainage holes. To prevent the soil from escaping from the drainage holes, and thus causing considerable dirt, you can place coffee filter pots at the bottom of the pots. As well as retaining dirt and giving nutrients to the soil, they will still pass water through because they are very porous.

What you can do with milk. Milk is an excellent natural fertiliser for all plants in the garden. If you add it to compost and soil in addition to fertilizing it will also provide good protection against fungal diseases.

Don't throw away the egg shells! Burying egg shells in pots or in the ground is a great trick for the garden, because they provide a lot of calcium for the plants. In addition to being rich in calcium, they are also very useful to protect against pests.

A natural remedy against fungal diseases is chamomile tea. Just add chamomile seeds to the soil, especially during the summer, this trick will also help the plants to germinate.

Perfect rose cuttings. When breeding by cutting roses, use potatoes to significantly improve the plant. Place the cuttings in the potatoes (no matter if whole or cut) and put them in the soil. The potato will give the rose all the nutrition and moisture it needs for strong growth and flourishing production.

The act of fertilizing a vegetable garden is very important as it guarantees higher yields and better quality. If we have not already done this in February, in what is called the finishing of the seedbed, we can also do it in March and in any case when preparing the soil for sowing and transplanting.

With a spade and a rake we can work the soil making sure to break the more leathery clods and make the substrate lighter and more porous. The breaking of the clods created in winter allows the rains to penetrate deeper into the seedbed giving us, when the good days come, a softer, finer and softer substrate. That is, ideal for sowing and transplanting seedlings and vegetables.

While working the seedbed, it is good practice to incorporate a good

amount of organic fertilizer into the soil, that is natural and allowed in organic farming, which will be the nutritional foundation of our garden and will help in the development of the seeds and stimulate the rooting of the transplanted plants.

It is good practice to let at least one month pass between soil preparation and sowing or transplanting proper. If we are in this condition, we can use a granular organic fertilizer which, disintegrating with the passing of the days, improves the structure and fertility of the soil, feeding even the most demanding plants in a balanced way.

If, on the other hand, a shorter period of time elapses from soil preparation to sowing, we can use "ready-to-use" fertilizers, i.e. liquid fertilizers. The liquid form, in fact, allows a quick assimilation by the roots because it is ready to use. Also in this case we prefer organic liquid fertilizers, i.e. allowed in organic farming, being able to choose between specific fertilizers for horticulture or aromatic plants.

Winter protection. In winter the seedlings need protection from the frost that could hit them. If the plants are planted in the garden, you can cover them with cut plastic bottles covered with fabric.

Do not throw away the cooking water. Water the plants with the cooking water from pasta, eggs, vegetables or potatoes. In this way you will transfer all the nutrients from the food to the plant.

Watch out for banana peels. You know, bananas are rich in potassium, especially their skins. A trick to grow roses well is to bury the peels near the rose bushes. As well as providing a lot of potassium, nutrients and fertilize, they also prevent fungal diseases. You can bury both fresh and dried banana peels, or you can prepare a liquid fertilizer. Put a chopped banana peel in a spray container, cover it with hot water until the container is full and leave it to rest for two weeks.

The power of ash. If you have a fireplace or do a lot of summer barbecues, don't throw the ashes away at all. This is also an excellent fertilizer, in fact it is excellent for enriching the soil with organic substances, and prevents the formation of colonies of parasites.

Diapers for flowers? A really unique method that you can use to keep the humidity constant inside the pots. Take a diaper (clean!) and put it on the bottom of a vase with the absorbent part facing upwards. This will allow you

to reduce the amount of water needed for watering and also avoid water stagnation in the saucers.

How to know if the seeds are still germinating? Old seeds may have lost their ability to germinate. To find out if they will still be able to give you flowers and fruits, one of the tricks is to test their fertility. Put some of them up in a moistened handkerchief inside a plastic bag, if more than half of them germinate it means that the fertility of the seed bag is still good.

For succulent plants. As you know, succulent plants are not very fond of water and watery stagnation. One of the tricks for the garden and vegetable garden to prevent the formation of excessive moisture in the pots is to put pine cones or ceramic shards at the bottom and then cover everything with potting soil.

Save the potting soil. If you have a very deep planter or pot and you don't have enough potting soil, one of the tricks for the garden is to put the old pots of the purchased plants or empty cans at the bottom. This way you will use a lot less potting soil and give the roots of the plants air and leave them free at the bottom.

Growing a Vegetable Garden in the Garden, how to do it.

Have you ever thought about growing a vegetable garden at home? If you have a garden or a large terrace, this is an idea not to be underestimated to always have fresh and controlled products at hand.

Creating a vegetable garden in the garden is not difficult, just know a few secrets, find the best fruits and vegetables to plant and take care of them with dedication and love. Let's see how to make a 0km garden at home.

Sowing the lawn, for a green and well-kept garden.

Position and size of the garden.

Having a vegetable garden in your backyard depends on the size of the available space. In general if you have a lot of space, you can reserve it for cultivation about 10 square meters. As for the choice of location, a lot depends on what you want to grow, but in any case it is essential to have a surface, drained and rich in organic substances that will ensure the growth of healthy and lush vegetables.

In general it is better to choose a very sunny area because most vegetables

need several hours of direct sunlight.

Structure and fence.

Making a vegetable garden is a fun experience, but at the same time it takes time and effort, so protecting it is essential. This must be done especially if we have children or pets such as dogs and cats in the house that will certainly not miss an opportunity to explore.

To secure the vegetables it is good to create a fence with iron stakes spaced about a meter apart and complete them with a wire mesh high enough, but with a small passage.

The arrangement of the plants inside the garden also plays an important role because they need to be arranged in an orderly manner so that they grow in the best possible way. They must be arranged in rows aligned to create a small corridor in which they can pass and move freely.

What to plant.

The vegetables to be planted are different, it depends very much on the tastes, needs and characteristics of the soil. The important thing is that each seed is planted respecting the seasonality.



Basil is one of the most cultivated aromatic plants in Italy; in fact, it is a small herbaceous plant, native to Asia, which arrived in Europe centuries ago, and has been cultivated both in Europe and in Asia for a very long time. As a matter of fact, the basil we are used to eat and see in the garden is a hybrid plant, whose botanical name is *Ocymumbasilicum* "genovese", as evidence of the city where the utilization of basil is more diffused. It is a perennial plant, cultivated usually as annual, as it fears the cold, and temperatures below 10°C cause its rapid deterioration. Basil, as we know it, is only one of the different varieties diffused in cultivation; in fact, in the Italian cuisine we appreciate in a particular way the so-called sweet, broad-leaved basil with a delicate aroma; but it is not so everywhere, in Asia, for instance, where basil is a fundamental ingredient of many regional cuisines, more varieties with liquorice, lemon or more spicy aroma are appreciated; in France and Greece the so-called ball basil is preferred: a variety of tiny leaf basil, *Ocimum basilicum*, var. *minimum*. But there are many varieties of basil, and also species spread all over the globe; there is purple or purple-leaved basil, with a pungent aroma, and also basil with a high content of limonene in the leaves, which gives them an intense lemon scent.

All plants are however similar, with lanceolate leaves, smooth, with well

visible venations, of a nice intense green colour; the thin stems are erect and not ramified, and at the apex, by the end of summer, a small spike of purple flowers is produced, followed by the woody fruits, capsules containing the small black seeds.

A famous recipe: Genovese Pesto

Pesto is a cold sauce, synonymous and symbol of Genoa and the whole of Liguria, which for some decades has been among the best known and most popular sauces in the world.

We can even find the first traces of pesto in the 19th century and since then the recipe has always remained identical, at least in the homemade preparation. To make real Genoese pesto you need a marble mortar and a wooden pestle and ... a lot of patience.

Like any traditional recipe, each family has its own Genoese pesto recipe, the one we propose in this recipe is that of the Genoese pesto consortium.

To prepare Genovese Pesto it is first necessary to specify that the basil leaves are not washed, but cleaned with a soft cloth; you will also have to make sure that it is Ligurian or Genoese basil, with narrow leave. Start preparing the pesto by placing the peeled garlic in the mortar together with some coarse salt. Begin to crush and, when the garlic has reduced to cream, add the basil leaves together with a pinch of coarse salt, which will serve to better crush the fibers and maintain a beautiful bright green color.

Then crush the basil against the walls of the mortar by turning the pestle from left to right and simultaneously turning the mortar in the opposite direction (from right to left), taking it by the "ears", ie the 4 rounded protrusions that characterize the mortar itself . Continue like this until a bright green liquid comes out of the basil leaves ; at this point add the pine nuts and start again to beat to reduce in cream.

Add the cheeses slowly, stirring constantly , to make the sauce even creamier, and lastly add the extra virgin olive oil which will be poured flush, always mixing with the pestle. Mix the ingredients well until you get a homogeneous sauce.

Your authentic Genovese pesto is ready to be used!

NEW METHOD OF CULTIVATION

In this chapter, we would like to show 3 new methods of cultivation that you can use also for microgreens: raised bed, hydroponics and vertical farming. Microgreens, as seen before, are a great way to get fast-growing, nutritious, home-grown green things into your diet. They can be grown in trays or in a garden bed, depending on what space you have. This bed will be a quick turnaround crop. Although we do recommend in our tutorial here working with soil, just because it's easier as concept. Because these plants aren't going to grow for very long, they don't need the long-term nourishment from the soil. A common alternative to dirt is using hydroponic growing mats. In this case microgreens spend their lives in an aquatic-based environment. They'll only receive their nutrients and oxygen from water, instead of absorbing it from the soil. The vertical garden, is compact and low-maintenance, suited for apartments, homes and offices of all sizes mostly, and allows you to grow nutritious food sources quickly, without worrying about watering and feeding your microgreens. We will see all the methods in detail.

Raised Bed

The "Raised Bed" technique is born from the monastic tradition, widespread especially in France, Italy and Germany. Actually, in many parts of Italy and France it is still a very common tradition.

The "Raised Bed" derives from an elementary need to preserve warmth. People knew how to cultivate under glass, even at the time when glass was an expensive, fragile and difficult material to find.

Saving heat even in winter permits to have fruit and vegetables all year round. These include the use of fresh manure, which in fermentation can reach 40°, arranged in layers, usually under cultivation.

"Raised Bed" is composed of a structure of the flowerbed which is not at ground level but raised from the ground. This gives us the possibility to manage a more tidy vegetable garden even on poorly fertile, stony soil or even on the balcony.

These garden chests, in addition to being a decorative element for the landscape, offer other advantages. For example, they make cultivation less tiring, simplifying the management of weeds and pests. They also potentially increase the yield of the crop. To build a "Raised Bed" you need to follow 6 simple steps:

Choose the right building materials

Before you start building your own "Raised Bed" it is important to make a good decision about the materials you will use to build it. Although materials such as heavy wood, track crossbars and concrete blocks are stronger than others, it is better to use something lighter and more practical. The advice is to use thin wood panels, which are lighter. Once they are full, the boxes will still be rather heavy but easier to move if necessary.

Respect the measurements

The idea behind a "Raised Bed" is to build a simple and easily accessible space. Therefore, it is necessary to create a flowerbed that is not too large. According to experts, the ideal size is 120 cm wide for a medium-sized person. In this way you can easily reach the centre of the box from both sides without hindrance.

How to keep weeds away

Another problem to keep in mind are weeds. In fact, weeds are a common nuisance in all cultivable areas. So in order to prevent weeds from climbing up through weeds from the soil, all you need to do is build a barrier to prevent it. To do this, you need to lay a fairly thick layer of cardboard on the ground or on the grass at the base of the box, covering every space carefully. This quick solution will prevent the seeds of germinating weeds from contaminating your raised garden.

What you have to add to the soil

Once the box has been made and the cardboard has been placed against the weeds, it is time to fill it with soil. Always use good quality soil and to save a little on costs add a layer of dead leaves or cut grass. As well as saving you something on the cost of the soil, these organic materials will decompose over time and thus enrich the soil with nutrients.

Protect the raised garden

Another important piece of advice is to arrange the cover sheets for the rows and nets for the birds. Then, before completely filling the box, you will

need to insert vertically placed PVC pipe segments along the inside walls of the container. When it is time to cover the plants, you will have to put the ends of the supporting structures for the sheets inside the pipes.

Hydroponic Gardening

With the spread of urban crops and vertical farms, new systems of agriculture that save space, water and fertilizers are going to be developed to permit to many citizens to grow their own vegetables independently.

Behind this choice there are health reasons - for example, to be sure to consume food produced without pesticides and not GMOs - cheap - nothing costs less than self-production - and environmental reasons, as well.

Hydroponics, aquaponics and aeroponics are united by the absence of soil; in these systems plant species use other media to replenish themselves with water and nutrients needed for growth.

Hydroponics Cultivation

By hydroponic cultivation (from the Greek antiohydor, water + ponos, work) we mean a technique of cultivation without soil, where the soil is replaced by an inert substrate, such as expanded clay, coconut fiber, rockwool or zeolite.

Hydroponic crops include all those cultivation techniques implemented in the absence of common agricultural soil. These crops include a wide range of systems, in which the supply of water and nutrients, essential for plant growth and development, takes place through the mix of a nutrient solution (water + nutrients dissolved in it). Banally, even a common potted plant that we keep on our balcony at home is an above-ground crop. It should therefore be pointed out that the term hydroponics is used to indicate crops without substrate or on liquid medium. Crops without soil can be divided into crops on substrate and crops without substrate or on liquid medium. In the past, the roots sink into a substrate of different types (organic, inorganic or artificial) which is constantly moistened with the nutrient solution, in the latter the root system is immersed directly in the nutrient solution. Hydroponic crops fall into this second category.

Large-scale Above-ground Cultivation

Above ground crops, depending on the technology they use, can be

divided into High Tech, Medium Tech and Low Tech (or simplified). The former are implemented in greenhouses of the latest generation, with highly automated and efficient systems for climate management in greenhouses and nutrient solution, the latter are very simple, often use recycled material and very low cost and find application in poor contexts, such as the suburbs of cities in poor countries. In the Netherlands, most greenhouse cultivation is carried out with above-ground systems. The well-known Dutch tomatoes, peppers and cucumbers are grown using high-tech above-ground systems. We should focus on above-ground cultivation for a very simple and important reason, because with traditional cultivation today, we can barely feed the world population. Now, each of us has on average of about 2 thousand square meters of agricultural land available, in the 70s it was more than double. Consider that in 2050 the population will reach 9.7 billion. Not to mention that the availability of agricultural land is decreasing as it is converted into building land. In the future there will be a contraction of available land. New methods of cultivation must therefore be found. Low-tech systems are an example of this, as they are easy to implement and inexpensive. Without looking to the future, these systems are still be important because they can increase the production and consumption of fresh vegetables in villages and poor suburbs of cities in the South of the world. And the relationship between them comes essentially from the plant's genetics, the climatic conditions in which it is found (temperature, light, humidity) and a whole series of other factors, such as irrigation or fertilization, which, if they are well modulated, can give rise to a high quality product.

. With this type of cultivation you can also modulate, for example, the stress on the plant. If you increase the salinity of the nutrient solution, the plant goes into stress and this causes it to produce several antioxidant substances, such as vitamins or certain pigments, which return a quality product. Hydroponics can represent a real alternative to traditional agriculture.

The Advantages

This type of cultivation has become more widespread where there is no available land. With above-ground cultivation you can grow outdoors or indoors, horizontal or vertical roofs or in cellars, in large or very small spaces. In many cases the crops can be very close to the place of marketing, reducing the economic and environmental costs due to transport. There is a

better control of the water and nutritional supply, with positive effects on quantity and quality of production. A reduction in water consumption, especially with closed systems, which recover the nutrient solution not used by the plants and recycle it, water savings of up to 80-90% can be achieved. Compared to traditional soil cultivation, above ground systems can be used efficiently in dry environments and climates.

There is an efficient use of fertilizers and better management of plant nutrition, as well as greater control over phytosanitary conditions. Hydroponic cultivation reduces, if not eliminates, the incidence of soil borne diseases, pests normally present in the soil and completely removes competition with weeds, which leads to a lower environmental impact, also due to a limited use of agro-pharmaceuticals and herbicides. Among the advantages, of course, there is also the possibility of mechanization and automation of production, increasingly moving to High Tech systems.

The Disadvantages

As in all things, there's a downside. In High Tech and in part in Medium Tech, installation costs are high and require specialized technical staff to check the correct functioning of the systems. Then you have to dispose of, on the one hand, the used or exhausted substrates, this becomes a problem if you do not use substrates of organic and/or natural origin and on the other hand the used materials, which with this type of cultivation are often difficult to recycle, as the plastic

Another critical point is the need for good quality, uncontaminated and non-saline water.

If we hypothesize a future where only hydroponics is used, the soil, in general, would be impoverished. However, such a scenario could lead to the cultivation of all those places that are disused today, such as industrial sheds, which can be reused in an intelligent and useful way. In this case the agricultural land, which is not exactly fertile, could be restored to naturalness through reforestation.

It seems that, all things considered, the convenience of using hydroponics is widely proven, since the advantages are clearly more convincing than the disadvantages. The problem arises because, given the lack of precise rules for the effective reduction of pesticides in the use of hydroponics, it would be difficult to consider it as a truly organic product. Above ground cultivation,

in Europe, is not allowed between 'organic' or 'organic' cultivation, because organic plant production is based on the principle that plants must be essentially fed through the soil ecosystem. For this reason, hydroponic cultivation is not allowed to produce 'pesticide-free'. In the USA, the same principle applies, but there is a strong debate about it. However, if well-managed, above ground production can offer all the guarantees to deliver to users a genuine, tasty, environmentally friendly product that guarantees all the organoleptic properties.

Vertical Garden

The vertical garden is an example of sustainable cultivation because it uses less water and less space than a traditional garden. A solution of great benefit for the environment that not only allows to reduce water waste and land use, but with which it is also possible to obtain organic products at zero kilometer, without the environmental cost of packaging and transport.

What it is about

The vertical garden consists of a vertical arrangement of the containers used for cultivation. This allows those who live in an apartment of a few square meters to have a vegetable garden in very narrow space.

The vertical garden solves the problem of space by allowing the cultivation of vegetables with a long growing length. In addition, the vertical garden can also be used as a real furnishing accessory, a vertical garden that can also accommodate flowering plants and other decorative species.

How to create a vertical garden on the balcony

To create a vertical vegetable garden you just need to find a free space on the balcony or terrace, even if not very large and if you don't even have that, with the right tricks you can cultivate your garden inside the house.

Not everyone is lucky enough to create their own garden in a small or large plot of land. For this reason many people choose to create a small garden on the balcony, with a bit of creativity.

It is possible to create a vegetable garden on the balcony in a few steps and without excessive cost in materials. The choice to grow a vegetable garden on your balcony is a good alternative to detach yourself from the continuous need to buy vegetables and make yourself almost completely

autonomous.

Before going into the actual steps for the preparation of the home vegetable garden, it is good to illustrate some aspects that will be very useful in the choice and design of the project.

Advantages and disadvantages of balcony cultivation

We know that having land in the open countryside has its great advantages, first and foremost the possibility of escaping from the urban environment and dedicating oneself to an activity that, although sometimes tiring, is considered recreational and brings great advantages and satisfaction.

However, the fact of having to move from the city to the countryside for many people can be problematic, you need a means of transport always available or someone with a driving license who can accompany us.

Also, having a vegetable garden outdoors is not the same as growing in pots or containers, you have to do hard tillage such as spading, and subsequent hoeing which is essential to get real results.

Growing in pots or containers can have several advantages, then doing it on your own balcony minimizes the need to move and becomes an activity with low impact both economic and physical effort. Despite this, growing a vegetable garden on the balcony requires an equally constant effort, watering will often be necessary, especially in summer when the very hot weather will dry the soil quickly.

In the end there is the space available, to obtain good results you will have to give up some horticultural species but this is true for those who have a small balcony, who instead has a terrace with much more space will also be able to try the cultivation of crops more demanding in terms of space.

The most tiring phase will be to introduce the soil into the pots, for this operation it is essential to equip yourself with buckets if you intend to use the soil taken from a plot of land or the purchase of bags of soil packaged in nurseries. For subsequent crops, the soil can be reused by adding organic manure or mature manure according to the vegetable crop.

The choice of vegetables

In order to have a good production and a harvest that is worth the work done, you will need to carefully choose the vegetables to grow.

If you have a small balcony you will have to choose mainly climbing

vegetable species, for this purpose you can use tomatoes to grow on supports, climbing peas and cucumbers. Vegetables such as pumpkins or courgettes should be avoided, even if they are very attractive they require a lot of space for growth, unlike tomatoes that can be bred to grow vertically, for example pumpkins will necessarily have to expand horizontally.

In the balcony you can also grow aubergines with good results, providing maximum exposure to light. The possibility of choosing personally the type of soil to use is also an additional advantage to provide the plant with the ideal soil.

You can grow all the spices. Aromatic plants are essential essences in the kitchen. The ones that give the best results are: basil, rosemary, sage, thyme, chives.

Although the cultivation of legumes such as beans and chickpeas can be very easy, it is not as advantageous from the production point of view. It is difficult to obtain sufficient yields for the need for a small household, and the space available is not sufficient to grow the necessary number of plants to satisfy it.

It is more appropriate to focus on growing vegetables for fresh consumption such as salads, lettuce tomatoes and cabbage, but the choice is purely individual and dictated by consumer tastes.

What you need to grow on the balcony

Like a real farmer, those who grow on their own balcony will also need to use some tools. They are not many and you can find them in many types of shops, low cost and reusable for other activities.

Initially you will need the pots. For this choice it is good to refer to the needs of the relative crops. For example, some vegetables need a deep soil in which to develop the roots (generally taproot) among these there are carrots for example, the root is the edible part (edible). Other plants are best suited to containers that are not too deep. Some annual or biennial aromatic plants can be grown safely in 15 - 20cm high pots.

You can also place the pots on the floor at the base of the railing, the important thing is that they are well exposed and do not conflict with other plants.

Finally, there are several tools that are useful to always have at hand,

among them there are:

- the classic metal shovel with which you can mix the soil;
- the watering can essential to administer the water;
- a container useful to retain rainwater that can be reused later without using tap water. It can also be used to transfer soil and transport fertilizer;
- gloves for various operations;
- gardening shears for collecting vegetables and topping if necessary;

Another cultivation solution is the use of several pots placed on the wall. An excellent alternative to vegetables are also small fruits such as raspberries, blueberries and strawberries. They are easy to grow and can lead to good results, they can be grown close to the wall by providing vertical supports or even on the railing. Some species of small fruit need an acidic soil, so it is a good idea to choose a suitable mix that can be found in any nursery or garden centre.

How to make the garden on the balcony come true step by step

In order to create the garden, since we know the necessities for starting cultivation, let's look at how best to use them.

The first step is to get the soil. For this choice it is necessary to verify the needs of the individual crops, however, the choice of a medium texture soil, soft, well-drained and medium rich in organic matter is good for many types of vegetables. Place the pots in appropriate positions and fill them almost completely with soil leaving about 5 - 7cm of space from the edge.

Initially it is advisable to buy the seedlings in the nursery, especially if you have not already sown some species. For sowing, instead, it is possible to initially dedicate oneself to aromatic plants such as basil, which is relatively easy to cultivate and without particular needs.

The transplanting is generally carried out in spring but also in summer and autumn depending on the species chosen, if you are at the beginning you can ask your trusted nurseryman for the most suitable plant for the period.

With the use of the shovel, make a small hole the size of a brick of earth and bury the seedlings. The planting density, i.e. the distance between the seedlings can be reduced compared to growing in the open field. The choice of a fertile soil in fact will not force the plants to expand excessively the root system, for this reason they can be grown at a shorter distance.

After transplanting, the plants can be watered generously; if the soil is too low, a slight tamping with other soil can be carried out without covering the collars of the plants excessively.

Subsequent treatments require the administration of water and, depending on the vegetable, any fertilization that can be done with simple manure soil or similar.

Other cultivation operations require the elimination of parasites. For this purpose pyrethrum-based products can be used in order to eliminate a large number of insects.

Irrigation

A very important aspect of a vegetable garden created on a balcony or terrace is the irrigation. Not always the exposure of a balcony allows the rains to wet the plants in a total and uniform way, for this reason you will have to resort to manual irrigation. There is another very advantageous alternative, however, which is that of automatic or drip irrigation. It is possible to do it manually or with the help of automated devices that allow a programmed irrigation with a reduced amount of water.

Microgreens: startups, ideas, projects and innovation

The microgreens market is definitely an interesting and profitable new trend. Agricultural standard companies and startups that innovate, started to experiment and launch microgreens products. In North America and the Netherlands it is already a business mania and the market is mature. The microgreens business is increasing in many other countries. The microgreens business is a sector where continuous experimentation has to launch a well-defined product. It is then necessary to pay attention to the product packaging. This idea of business with microgreens can lead to different distribution ideas. For example, the strategy of using the local distribution channel at zero km. The distinctive element of this product is the freshness. Customers are mainly niche supermarkets and haute cuisine restaurants. The packaging could be represented by a box containing 8 trays with different combinations of colors, tastes and flavors.



The management strategy can however be different and diversified. The important thing is to find the distinctive element so that you can perceive the added value of your products. This must be a relevant objective to trace in your business plan. In particular, you will need to focus your attention on the following areas or building blocks: resources, activities and key partners, potential customer segments, value proposition, distribution channels, customer relations, pricing to be applied, cost structure.

The Market

Startups that produce micro vegetables can act, as we have seen, focusing on local markets and high standard restaurants which always aim to offer innovative and special cooked dishes. The initial strategy can often be of starting moving locally to enhance and give notoriety to the brand.

However, this business approach cannot be standardized and defined a priori. Every startup must define its long term objectives. The market evolves and opportunities arise and business models can change, which need to be redesigned and adapted quickly. The feeling is that the trend of micro vegetables is destined to grow. In fact, it is targeting large retailers for the sale of micro vegetables.

How to Build the Micro Vegetable Business

In order to measure yourself in starting this business, it is advisable to follow some advice, which will promote successful business.

1) Study.

See what they do in other countries, search online. You can download a good guide for free from the site, and try it out.

2) Looking for the right place for the greenhouse

The advantages are those of solar radiation, which improves the nutrients, the appearance of the vegetable, its fleshiness and taste. The costs of preparation are between \$150 and \$200 per square meter. It takes about \$250,000 to set up a production on 1000 square meters.

3) Shed or Rural Building.

The micro-organisms do not grow in full soil. You can grow them indoors. Or in the attic, on a roof, in a city loft. With adequate lighting, there is no need for the sun: the micro-organisms take their energy from the seed. And in

the laboratory, the necessary microbiological monitoring is done. In an environment of 90 square meters you can equip yourself with \$15,000.

4) Attention to Hygiene

Bacteria such as Salmonella and Escherichia coli, which are harmful to humans, can contaminate shoots and micro-cartages. Buy seeds for the micro-sprouts which are bacteriological controlled. To handle food, you need food operator authorization.

5) Prepare the Implant.

Tables, shelves, and with more shelves, depends on the available space. Recover old shelving. One area is reserved for germination, the rest for plant growth. To set up the space, you can spend between \$25,000 and \$50,000.

6) Make Light.

Indoors, you need lamps: fluorescent or led lamps, expensive at the beginning, but which allow you to save on consumption. The supply of electricity is an important cost item, about \$300 on average per month.

7) Produce and Packaging.

Pet baskets cost 4/5 cents per piece. Prices go down for purchases in large quantities (10 thousand pieces). Costs: \$1,000 for packaging, about \$2,500 for the alveoli, where the seedlings grow. Attention: choose a logo and customize the packaging.

8) Set a Price.

The business is there. A tray of 100 seedlings costs the customer \$2,50 / \$3. Its 5/10 grams of cut product. Much more than the normal fresh vegetable. The larger ones, sold in the company, cost \$3. Those intended for restaurants, markets and other farms, \$3- \$8 dollars to the basket.

9) Organize the Distribution.

A van or large vehicle is essential. Sell in specialized shops, large-scale distribution, restaurants, catering. And in your company or producers' markets. Look for a distributor with vans equipped to maintain the cold cycle.

CONCLUSION

his book gives you a general understanding about microgreens and teaches how to appropriately cultivate them, either for personal use or for business purposes. This guide includes several tips about agriculture, natural methods of fertilizing the soil, useful for growing microgreens and other plants.

In the modern world, it is difficult to understand the central role of food in shaping our hearth. The industrialization has hidden the complex chain that brings food from the countryside, where raw ingredients grow, to supermarkets, cafes and our kitchens.

Food is not only a matter of nutrition. Food speaks us about a different environment, a place that we can still call the countryside, but which rarely resembles the "bucolic paradise" of our imagination.

We wish to describe a new technique of cultivation and at the same time we start a reflection on food production, gardening and agriculture in harmony with nature, in the spirit of a reconnection between city and countryside.

If you liked this book please leave us a review, we would really appreciate if you spend part of your time to comment and improve our guide.

NOTES

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